

The Psychical Research Foundation and its Legacy under William G. Roll: Past Findings and Future Directions*

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Abstract: The Psychical Research Foundation (PRF) was formally established in 1961 as an organization devoted primarily to the scientific study of phenomena related to the issue of survival of bodily death. From the time of its inception up until his passing in January of 2012, William G. Roll had faithfully served as the PRF's first and only director of research. The year 2011 marked the 50th anniversary of the PRF, and as a way to observe this milestone occasion, as well as honor Roll's memory, this paper highlights the various lines of psi research conducted by PRF throughout the duration of Roll's tenure as research director, with particular emphasis on its survival-related research. Concise reviews of the PRF's controlled tests with mediums and psychics, its laboratory studies of out-of-body experiences (OBEs), and its field investigations of apparitions, hauntings, and recurrent spontaneous psychokinesis (RSPK, or "poltergeist") are presented, and the findings are discussed in the light of other related findings reported in the parapsychological literature. Some of the theoretical approaches to psi and survival that Roll had developed on the basis of the PRF's findings are also briefly summarized, and some hopes for the future of the PRF as it seeks to carry onward in the "spirit" of Roll's efforts are offered.

Introduction

In the second week of June in 1959, a special four-day research symposium was held at the Parapsychology Laboratory of Duke University. Entitled "Symposium on Incorporeal Personal Agency," it was devoted entirely to what many people find to be a very fascinating topic: the question of whether human personality or consciousness can survive after death. Papers describing various lines of research on survival were presented, with several of them later being published in Volume 24 of the *Journal of Parapsychology*: Louisa Rhine (1960) presented a critical survey of 258 cases in her spontaneous psi collection that seemed to involve a deceased agent. J. Gaither Pratt (1960) outlined the various methods that he and other psi researchers had devised for quantitatively evaluating the verbal statements given by mediums and psychics during readings. Philosopher H. H. Price (1960a, 1960b) discussed the survival issue within the context of mediumship in one paper, and presented two theories he had developed about apparitions in another. And William G. Roll (1960) reviewed the findings that various psychical researchers had obtained in their sittings with mediums.

Among the people in attendance at the symposium was Charles E. Ozanne, a retired teacher from Ohio who had built up a small fortune through some very wise investments. Mr. Ozanne was deeply interested in survival, but he also realized that the scientific evidence for it was not very strong, so in 1960 he approached J. B. Rhine about the possibility of setting up a fund at Duke to support survival research. Of course, Rhine was interested primarily in the psi abilities of living people, and he recognized the possibility that many survival-related phenomena could perhaps be explained in terms of extrasensory perception (ESP) and psychokinesis (PK, or "mind over matter") on the part of the living, without any necessary recourse to the spirits of the

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deceased (e.g., Rhine, 1956). For instance, in the case of mediumship, it is traditionally assumed that the medium is receiving information about a deceased person through telepathic contact with that person's surviving spirit. However, an alternate (and perhaps simpler) possibility is that, rather than contact with the person's spirit, the medium is instead receiving the information through telepathic contact with the person's living relative or friend, who is sitting across from the medium during the reading.

Despite this alternate possibility of psi from the living, Rhine remained open-minded about the spirit hypothesis, and with financial backing from Mr. Ozanne, he helped create a Psychical Research Fund at Duke for the purpose of exploring survival. Then in 1961, this fund became the basis for establishing an organization that would be known as the Psychical Research Foundation (PRF), with Rhine appointing Pratt to serve as its first president. Rhine then added Price to the PRF board as the first vice-president, and made Roll the first director in charge of research. And since that time, the PRF has carried on as an organization devoted primarily to the scientific exploration of survival-related phenomena.¹

Although the positions of president and vice-president have changed several times over the course of the PRF's existence, William G. Roll had faithfully served, right up until the time of his passing in January of 2012, as its first and only research director. In many respects, he had been the heart and soul of the PRF over these many years, and his devotion to the organization showed in his actions. For instance, when Rhine finally had to retire from Duke in 1964, the space occupied by the PRF at the university was suddenly lost, and in order to keep it going, Roll had moved the PRF into two rooms of his house in Durham, North Carolina.

Around 1969, the PRF was able to return to Duke University as a sponsored program of the Department of Electrical Engineering. This was facilitated by the interest shown in the PRF's work by the Dean of Electrical Engineering, Alexander Vesic, as well as the close collaboration between the PRF and two professors in the department, William Joines and John Artley. During this period, three small houses on the Duke campus were rented from the university to serve as the PRF's laboratory, library, office, and meditation center.

Following Vesic's passing, Roll was again forced to relocate the PRF to an office in the Methodist Center in Chapel Hill, close to the University of North Carolina. There it stayed until 1986, when it was moved to West Georgia College (now the University of West Georgia) through the efforts of Myron Arons, the chair of the College's psychology department, and the PRF's current president, Jerry Conser. And up to the present time, the PRF has largely been maintained through the dedicated efforts of Roll and Conser.²

The year 2011 marked the 50th anniversary of the founding of the PRF, and to observe this milestone occasion, as well as pay tribute to the memory of its long-time research director, William Roll, this paper is intended to reflect back on the period of Roll's directorship and highlight the various lines of psi research carried out by him and the other members of the PRF research team (which included Robert Morris³, Jerry Solfvin, Keith Harary, Judith and Fritz Klein, John Stump, and Joan Krieger). Particular emphasis will be given here to the PRF's

¹ Stacy Horn, author of the book *Unbelievable* (which presents a concise and readable history of the Duke Parapsychology Laboratory; Horn, 2009), had put up a post on her blog in 2009 that offers additional details about Charles Ozanne, his involvement with Rhine and the Duke lab, and the founding of the PRF (<http://www.stacyhorn.com/unbelievable/?p=775>).

² A detailed reflective history of the PRF was written by Roll in 2010, which can now be found on the "About" page of the PRF website (<http://www.psychicalresearchfoundation.com/about.html>).

³ Morris later went on to hold the Koestler Chair of Parapsychology at the University of Edinburgh in Scotland until his passing in August of 2004.

research activities relating to survival, which included controlled tests with mediums and psychics, laboratory studies of out-of-body experiences, and field investigations of apparitions, hauntings, and recurrent spontaneous psychokinesis (RSPK, or “poltergeist” phenomena). Summaries of some of the main findings obtained by the PRF on these topics will be given, and the findings are examined in the light of other related findings that have been reported in the parapsychological literature. Finally, a brief summary will be given of some of the theoretical approaches that Roll had personally developed on the basis of the PRF’s findings, and some hopes for the future of the PRF as it seeks to carry forward in the “spirit” (excuse the pun) of Roll’s efforts will be offered.

Controlled Tests with Mediums and Psychics

The PRF has contributed in various ways to the study of mediums and psychics. But in order to see how, it is imperative to form a basic background:

From time immemorial, people have been fascinated by the claimed abilities of mediums and psychics, but systematic efforts to study them only extend back less than two centuries (to 1882, to be exact), when the Society for Psychical Research (SPR) was founded in England by a prominent group of scholars associated with Cambridge University. This was at the height of the Spiritualism movement, when it was quite socially fashionable for people to hold parlor room sittings with a particular medium or psychic on a frequent basis. Several members of the SPR attended some of these sittings, and although they found a number of these mediums and psychics to be fraudulent, they also found a certain few, such as Lenore Piper and D. D. Home, who seemed to be genuinely gifted (for reviews of studies with mediums and psychics, see Gauld, 1982; Roll, 1960, 1982a, Sect. 3; Schouten, 1993, 1994; and Stevenson, 1977).

Generally, a simple distinction can be made between mediums and psychics on the basis of how they each choose to apply their abilities: *mediums* tend to apply their abilities toward attempts to communicate with deceased people, whereas *psychics* tend to apply them in their efforts to obtain information about hidden objects, distant places, or people who are still living. In whatever manner their abilities are applied, both seem to entail the use of ESP.

Of course, a central question that can be asked is: “How can we be sure that the information or impressions received by mediums and psychics during a reading are really being received through ESP, and not through some conventional (i.e., non-psychic) process such as sensory cuing, logical inference, or deception?” One way to address this question is to try and minimize, as much as possible, all sensory contact between the medium/psychic and the person to whom the reading is being given (traditionally called the “sitter”). Ideally, this can be done by placing the medium/psychic and the sitter in separate rooms that are either soundproofed, or are spaced far enough away that sounds from one room cannot be heard in the other. Another way is to use *proxy sittings* (Kelly, 2010, pp. 256 – 279). Two types of proxy sitting can be utilized in a test situation, either of which can allow a reading to be conducted in the absence of a sitter. In the first type, which has recently been used in studies of mediumship (Beischel & Schwartz, 2007; Kelly & Arcangel, 2011), another person acts as a “stand-in” for the absent sitter. To make sure that this *proxy sitter* is not able to give the psychic/medium any clues during the reading, the proxy is not told anything about the actual sitter who he or she is standing in for.⁴ Nor, in the case

⁴ At most, the only piece of information that the proxy sitter may be given is the actual sitter’s name, which is intended to help the psychic focus on the *actual* sitter during the reading, rather than the proxy.

of mediumship, is the proxy sitter told anything about the deceased person that the actual sitter hopes to contact on “the other side.”⁵

The second type, which has been used in studies conducted by the PRF, involves the use of *psychometry*, in which the medium/psychic is given an object belonging to a person and asked to psychically gather information or impressions about that person while holding the object.⁶ Early studies of psychometry were made by members of the SPR within the broader context of their studies of trance mediumship, where some of the mediums held objects belonging to deceased individuals as a way to help them make contact with those individuals on “the other side.” Then in the early part of the 20th century, some psychical researchers began asking psychics to perform readings while holding objects that belonged to living people, in order to see what this might reveal about psychic awareness (for a concise and readable review of early psychometry studies, see Roll, 2004).

Throughout the 1970s and into the early 1980s, the PRF carried on the tradition by conducting psychometry studies with certain mediums and psychics (e.g., Huegel, Goodrum, & Roll, 1983; Roll, 1971)⁷, including Noreen Renier, who is well-known for using her psychometric skill in helping the police investigate unsolved crimes (Renier, 2008). In addition to allowing mediums and psychics to be tested in a proxy situation, psychometry studies allowed researchers to explore the possibility that what a medium or psychic may be “responding” to in a psychometry reading is certain memory-like aspects (or “traces”) associated with the owner that are psychically linked in some way with the psychometric object.⁸ An example from a moderately successful psychometry study that Roll (1966c) had conducted as part of a series of three (Roll, 1966b, 1966c; Roll & Tart, 1965) shows one way in which this possibility was explored:

Pairs of blank cards were sealed into polyethylene plastic covers and given to four volunteers, who carried them around for at least a week. The pairs were separated afterward, with each card of the pair being placed into an opaque envelope. The pairing order of the cards was then mixed up by hand shuffling the envelopes, and two female psychics attempted to match together again the two cards that belonged in each pair, on the basis of the similar memory-like “vibrations” or “traces” that the two cards presumably share in association with the volunteer who had carried them.⁹ Although the results of the study were not statistically significant overall, the two psychics had shown promising results in their attempts to match the pair of cards carried by one particular female volunteer, R.K., with odds of about 64 to one against chance ($p = .0156$).¹⁰

Of course, it is very important that the object being handled by the medium/psychic in a psychometry reading is neutral enough in appearance that it cannot provide the medium/psychic with very many sensory clues by which he or she can logically infer specific details about the owner’s personality, preferences, or appearance. It can be difficult, for example, to logically infer

⁵ Again, the only thing that the proxy sitter may be told is the deceased person’s name, which is intended to help the medium establish contact with that particular person “on the other side.”

⁶ Apart from its parapsychological context, the term *psychometry* has also been used to refer to the branch of psychology that deals with mental testing and measurement, so to avoid confusion, the terms *object association* or *token object reading* are sometimes used as alternates.

⁷ This was likely influenced by Roll, who had a long personal interest in psychometry.

⁸ Consideration of this possibility would become an important part of the theoretical approaches to survival that Roll developed on the basis of the PRF findings (discussed later in this paper).

⁹ In a loose sense, one might think of the two cards as having some kind of lingering, memory-like “trace” of the volunteer who carried them, and the psychics were trying to match them together again based on these lingering “traces” they share in common.

¹⁰ Generally in psychology, odds of at least 20 to one are considered statistically significant.

much about the owner of a plain white coffee cup. Coupled with the absence of the owner (i.e., the sitter) in a proxy situation, it can be difficult to see how a medium/psychic would be able to obtain many specific details about the owner other than through the use of ESP.

A question that can be asked specifically about the accuracy that a psychic or medium apparently exhibits in a reading is: “How do we know that this accuracy doesn’t stem from the ‘Barnum effect’; that is, from the medium/psychic giving information to the sitter that is so vague, broad, and generalizable that it can apply to almost anyone?” For instance, a medium will often begin a reading with a statement like: “I’m getting a name that begins with a B...a B-sounding name, like Bob or Bill or Ben...” It is quite likely that there are a lot of people who know a Bob, Bill, or Ben (or will at least know someone with a B-sounding name), and such a statement will probably draw their attention in a reading.

When used in personality tests, the Barnum effect has been found to be quite effective on people (Dickson & Kelly, 1985; Furnham & Schofield, 1987). For instance, many people have perceived statements like “You enjoy a certain amount of change in your life” and “You are generally cheerful and optimistic but get depressed at times” as accurately describing them. One might notice that similar statements often appear in horoscopes, and have been made by tarot card readers and phone-line psychics (McMahon & Lascrain, 1997). Thus, it is important to keep in mind that while such statements can seem accurate at first glance, they can also be deceptive in that it is very likely that they will broadly apply to a lot of people.

Over the years, parapsychologists have tried to devise ways to control for the Barnum effect in mediumistic and psychic readings given in research situations (for reviews, see Pratt, 1960, 1969; and Schouten, 1994). One of the ways, which the PRF has previously made an effort to improve upon, is a method for evaluating the accuracy of readings that was initially developed by J. Gaither Pratt and William R. Birge (1948) from earlier methods. In order to see how this method works, it is best to illustrate it in a simple manner:

Let’s say that a researcher is conducting a mediumship study consisting of five separate test sessions. In each session, a medium gives a reading intended for one of the five sitters participating in the study. Each session is performed by proxy sitting, so each sitter remains unaware of which session was intended for him or her. After all five sessions are completed, the researcher transcribes each of the five readings given by the medium, shuffles up the order of the readings, and presents them as a group to each of the sitters (i.e., each sitter receives a packet of five readings – one intended specifically for him/her, and four that were intended for the other four sitters). The researcher asks each sitter to read through all five of the transcribed readings and rate the accuracy of the statements contained in each one, as they apply to him/her.

It is important to remember that since the readings were performed by proxy sitting, each sitter does not yet know which of the five readings is the one intended for him/her (the sitter will not know this until after he or she has rated all of them). This means that the sitter will be rating the accuracy of the statements both in the reading that was intended for him/her (the “target” reading), and in the other four readings intended for the other sitters (which are acting as “decoy” readings).

This method controls for the Barnum effect in the following manner: If the medium is producing specific and accurate statements that apply only to the sitter, then each sitter should rate the target reading (i.e., his/her own reading) as being significantly more accurate than the other four decoy readings. On the other hand, if the medium is using the Barnum effect to produce readings that contain statements which are vague and can apply to almost anyone, then each sitter should rate the accuracy of the target reading as being about the same as the other four decoy

readings. In other words, the statements in the decoy readings (i.e., the ones intended for the other sitters) should be judged by the sitter to be just as accurate as the statements contained in the target reading intended for him/her, which is what we would expect if the statements made by the medium/psychic could apply to anyone.

Some modifications were later made to the Pratt-Birge method by the PRF in order to increase its statistical sensitivity and simplify its calculations (Roll, 1962; Roll & Burdick, 1969). One such modification was introducing numerical weights to adjust the accuracy ratings given to each of the reading statements based on how widely they seemed to apply to the sitters (Burdick & Roll, 1971; Roll, 1971). For instance, if a particular statement applied to many sitters (indicated by a relatively large number of sitters rating the statement as being accurate to them), then the statement was assigned a small weight value. On the other hand, if the statement applied only to a small number of sitters, it was assigned a large weight value. In short, the fewer sitters that a statement seemed to apply to, the greater weight value it was given. Assigning weights in this manner helped to assess the degree to which the statements in a reading could be generalized to other people, and helped improve scoring by giving greater credit to more specific statements that seemed to apply only to certain people.

The PRF also helped refine the statistical calculations involved in another useful method for evaluating mediumistic and psychic readings known as preferential matching, initially developed by C. E. Stuart (1942). Preferential matching differs from the Pratt-Birge method in that rather than being concerned with the accuracy of the individual statements in a reading, preferential ranking is concerned with the accuracy of the reading *as a whole*. Again, a simple illustration of the method can be helpful:

Let's again say that a researcher is conducting a mediumship study consisting of five proxy sessions, with a medium giving a reading during each session that is intended for one of five sitters. After all five sessions are complete, the researcher again transcribes the five readings (one target reading intended for the sitter, and four decoy readings), shuffles up their order, and presents them as a group to each of the sitters. Each sitter is asked to read through all five transcribed readings, but instead of rating the accuracy of the individual statements contained in each one, the sitter is asked to consider the *overall* accuracy of each reading. Based on this consideration, the sitter is then asked to place the five readings in the order in which they seem to match him/her, with the reading that seems to be the closest match being placed first, followed by the second closest match, then the third closest match, and so on. Once the sitter has placed the five readings in this order (i.e., from the closest match to the least closest match), the researcher reveals where the target reading was placed in this order. Ideally, if the target reading was accurate for the sitter, then it should be the first closest match (or at least be the second closest). The PRF extended and refined the methods used to analyze preferential matching data and assess the statistical significance of the outcomes across a number of test sessions (Morris, 1972; Solfvin, Kelly, & Burdick, 1978).

In addition to verbal descriptions, the PRF briefly explored a unique way in which mediums and psychics could convey mental impressions they received of the sitter and/or the sitter's deceased relatives and friends. This involved the use of the Identi-Kit, a tool often used by the police to produce portraits of wanted suspects. The use of the Identi-Kit in the context of a mediumistic/psychic reading can be illustrated by an example from a study that Roll (1971) had conducted with a medium named Herbert Beyer.

In that study, Beyer gave separate readings to seven male sitters and seven female sitters. Before each reading, the sitter was brought into a test room and seated before a closed door that

was covered over with noise reduction panels. Seated in the room on the other side of the door was Beyer, who gave the reading while the sitter sat quietly, listening to soft static noise played through earphones covered over with large ear protectors (like those worn by people working in loud noise areas). The noise from a fan further prevented the sitter from hearing what Beyer was saying during the reading. If, during the course of the reading, Beyer saw an image of the sitter's face, he was asked at the end of the reading to use the Identi-Kit to try and reproduce the face that he saw.

With the aid of an assistant, Beyer went through a booklet that contained images of ten types of different facial features (e.g., eyes, noses, mouths, hair) and wearable objects (e.g., glasses, headgear, hats, etc.) that could be put together to form a unique image of a face. The specific features and objects that Beyer chose from the booklet were then retrieved from a container of about 600 transparencies and overlaid on a clipboard to form the face that Beyer had seen.

After all the readings were completed, the face that had been made for a particular sitter was photocopied and given to that sitter, along with six other Identi-Kit faces of the same sex that had been mixed in with it. The sitter was asked to look closely at each face and choose the one that seemed to most closely resemble his or her own. The results seemed rather promising for the group of female sitters: three of the six sitters for whom Beyer had constructed facial images had correctly chosen the face intended for them. If predicted in advance, this result would have been statistically significant, at odds of about 20 to one against chance ($CR = 1.65$, $p = .05$).

Throughout the 1970s and early 1980s, the PRF conducted a number of studies with other mediums and psychics such as Irene Hughes, Ann Jensen, and Douglas Johnson. According to Roll (1982a, p. 174), the results of most of these studies were at chance, although the reason for this may have had more to do with the design of the experimental methods used in the PRF studies, rather than the mediums and psychics themselves. In particular, Roll suggested that the methods may not have taken sufficient account of the close interpersonal relations between the researchers, the sitters, and the mediums/psychics, through which ESP often seems to manifest.

However, the PRF was able to conduct several successful ESP studies with a psychic named Sean Harribance, who had become quite well-known on his native island of Trinidad for his psychic readings. In January of 1969, Harribance was invited to visit the Foundation for Research on the Nature of Man (FRNM; what is now the Rhine Research Center) to participate in preliminary tests of his reported abilities. Since Harribance was accustomed to giving psychic responses to people through his readings, the FRNM researchers had designed their tests to include this element by having Harribance guess the sex (male or female) of people shown in a concealed pack of specially made photo-cards. With the probability of a correct guess (or a "hit") being 1 in 2, an average hit rate of 50% would be expected by chance. Harribance's overall performance in the preliminary FRNM tests was nearly 10% higher, at a hit rate of 59.6% (739 hits in 1,239 trials, $z = 6.76$, $p = 1.39 \times 10^{-11}$, two-tailed), suggesting that further research was warranted.

The PRF then continued the research with Harribance in a series of 14 photo-card tests that were carried out from 1969 to 1971 (Damgaard, 1971; Klein, 1971; Morris, Roll, Klein, & Wheeler, 1972; Roll & Klein, 1972; Stump, Roll, & Roll, 1970). In the ten most well-controlled tests of this series, an extra level of precaution was taken against sensory cuing by having Harribance located in Room 1 of the PRF laboratory facility, while the researcher handling the photo-cards was located in the adjacent Room 2 (see Figure 1). The two rooms shared no

windows, their doors were kept shut during testing, and any sounds were muffled by a six-inch thick wall that separated the rooms.

At the beginning of each test trial, the researcher thoroughly shuffled the photo-cards by hand and laid them in a row on a tabletop that was covered with a wool blanket (to further mask any sounds made by the placing of the cards). The researcher then knocked once on the wall separating the two rooms as a signal for Harribance to begin writing down his guesses in the other room. After doing so, Harribance knocked on the wall to signal the researcher to collect the cards, re-shuffle them, and repeat the process again for the next trial. To minimize the possibility that the researcher could have provided a sound cue to Harribance through the knock on the wall, the photo-cards were laid face-down so that the people shown on the card faces could not be seen. The possibility that Sean could have exited the room he was in and looked into the researcher's room is highly unlikely because he could not have opened both room doors without being seen or heard by the researcher. Furthermore, the door to the researcher's room had a sealed keyhole to prevent anyone from looking inside. And as mentioned, the cards could not be seen when they were laid face-down.

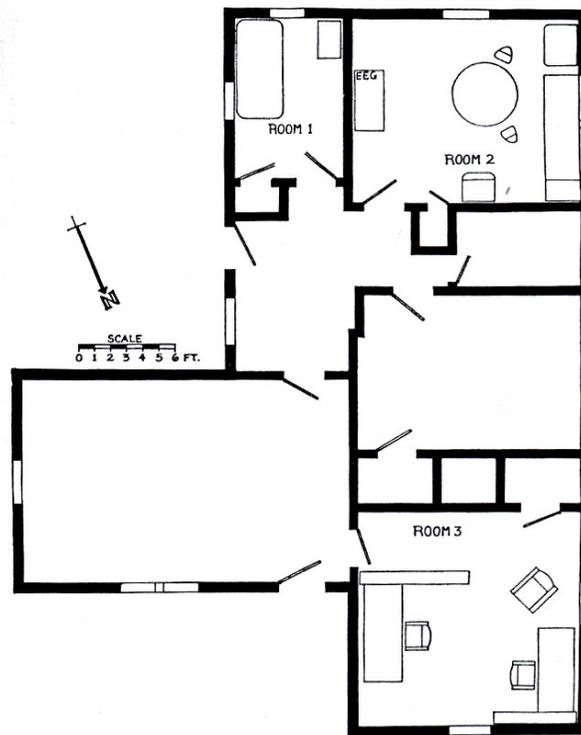


Figure 1. A floor plan of the PRF laboratory facility where the photo-card tests with Harribance were conducted. During the tests, Harribance was located in Room 1, while the researcher was in Room 2. The doors to both rooms were closed during testing. (Adapted from Figure 1 of Roll & Klein, 1972)

A graphical summary of Harribance's performance in the ten most well controlled tests of the PRF photo-card series is shown in Figure 2, expressed in terms of individual hit rate percentages and their associated 95 percent confidence intervals.¹¹ Although the figure indicates

¹¹ Perhaps the most convenient lay description of the relevance of a confidence interval was given by Dean Radin (1997) in his book *The Conscious Universe*: "In general, a small confidence interval around a point estimate [e.g., hit

that Harribance's hit rate had varied across the tests, his *overall* hit rate of 60.9% (indicated by the point interval on the far right side of the figure) was significantly above what would be expected by chance (3,584 hits in 5,890 trials, $z = 16.65$, $p \ll 10^{-50}$). This hit rate has estimated odds greater than 100 quindecentillion to one, which clearly rules out chance as a plausible explanation for the results.

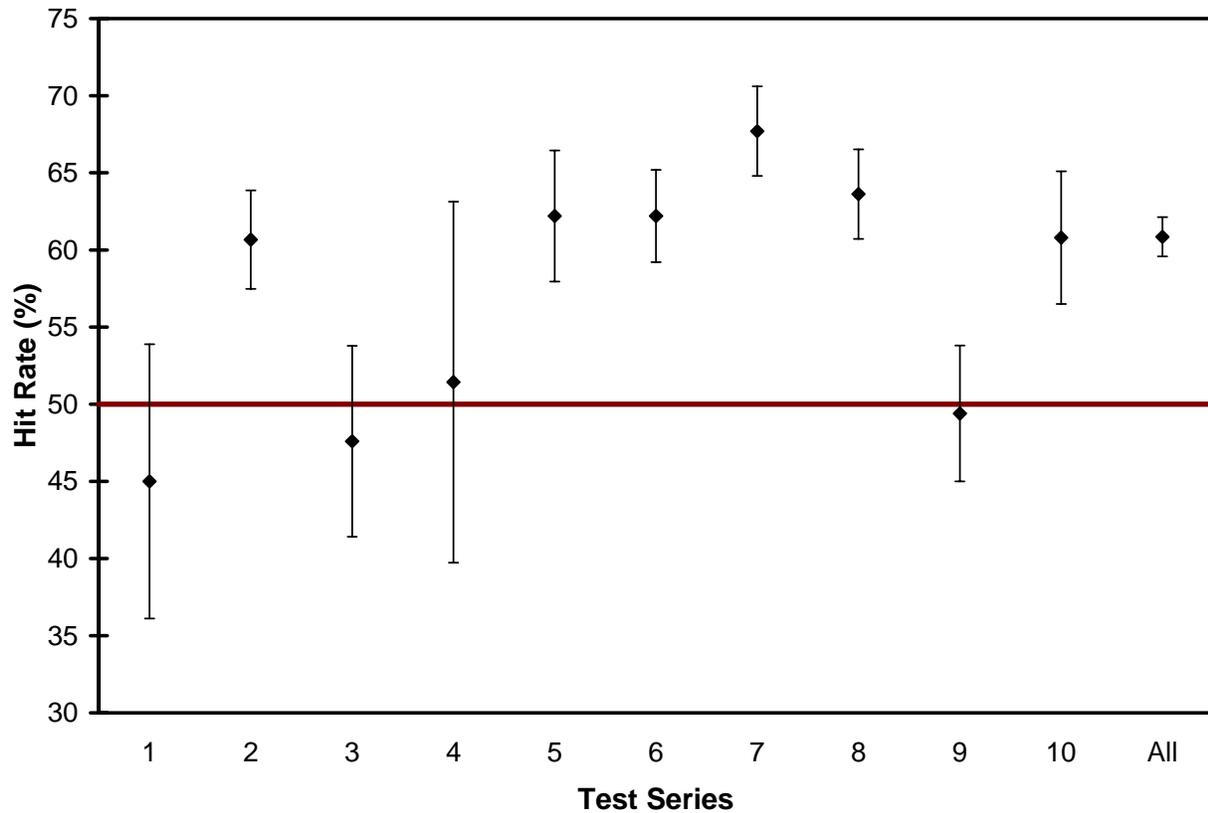


Figure 2. Results summary for the series of ten photo-card tests that the PRF conducted with Harribance, showing the hit rate percentage and 95 percent confidence interval for each series. The far right point interval labeled “All” represents the hit rate for the ten series combined. The bold horizontal line at 50% indicates the expected chance hit rate.

In addition to the photo-card tests, the PRF conducted two free response tests with Harribance that were meant to basically simulate, under controlled conditions, the kinds of psychic readings that he was used to giving people in Trinidad (Roll, Morris, Damgaard, Klein, & Roll, 1973). In one test, Harribance gave readings to ten male sitters, and in the other test, to ten female sitters.

Before the sitter arrived, Harribance was enclosed with a member of the PRF research team (who we'll refer to here as Researcher 1) in Room 1 of the PRF facility (see Figure 1). Meanwhile, in a separate building, another member of the PRF team (who we'll call Researcher 2) met the sitter and collected three objects from him/her. The first object was a Polaroid

rate] means that the point estimate was based on lots of trials, or that the repeated observations were very similar to each other, or both. A large confidence interval means that the point estimate was based on only a few trials, or the repeated observations were very different from each other, or both. The prefix ‘95 percent’ means that we can be 95 percent sure that the true long-term skill [i.e., the true, long-term hit rate] is somewhere in that range [i.e., within the bounds of the confidence interval].” (p. 34).

photograph taken of the sitter by Researcher 2, which was left undeveloped in its original casing. The second object was a few strands of the sitter's hair. The third object was a folded index card, upon which the sitter had written a personal problem that he or she wished to ask Harribance about. The hair strands and the index card were sealed into an opaque envelope and were meant to serve, along with the undeveloped photo, as psychometric objects that Harribance could handle to help him focus on the sitter.

Researcher 2 then escorted the sitter to the PRF facility and quietly showed him or her into Room 3 (see Figure 1). Researcher 2 placed the sealed envelope and the undeveloped photo on a table in the large room just beyond the front door, and then knocked once on a door leading to the rear of the facility where Room 1 was located. Upon hearing the knock, Researcher 1 waited a few moments for Researcher 2 to join the sitter in Room 3 and shut the door. Then Researcher 1 went out of Room 1 to retrieve the envelope and undeveloped photo that had been left in the large room. The objects were brought back to Harribance, who performed a reading for the sitter while handling them. After about 15 minutes, Researcher 2 escorted the sitter out and away from the facility, and then signaled the sitter's departure to Researcher 1 using a telephone-based intercom buzzer. After receiving the buzzing signal, Harribance and Researcher 1 were free to leave Room 1. This helped ensure that Harribance never saw the sitter, and thus excluded the possibility of sensory cuing.

After all the readings were completed, the audio recordings made of them were transcribed and all information that might lead to false hits (such as what the sitter was wearing, from which one might logically infer what the weather was like during the reading) was edited out of the transcripts. The order of the transcribed readings was then shuffled up, and they were given as a group to each of the ten sitters of the same sex. Each sitter was asked to read through the ten readings and rank them according to how closely they corresponded to him/her, with the reading showing the highest correspondence being ranked first. Analysis revealed that six of the 20 total sitters had ranked the reading intended for them in first place, an outcome that has odds greater than 50 to one against chance (exact binomial $p < .02$).¹²

Additional studies with Harribance later revealed that his successful ESP performance tends to be associated with brain wave activity in the alpha range (8 to 12 Hertz), which tends to be linked with a state of relaxed awareness (Alexander et al., 1998; Morris et al., 1972; Roll & Persinger, 1998b; Roll et al., 2002). Neuropsychological tests further revealed signs of a possible change in the structure of the right side of Harribance's brain, in an area that borders his right parietal lobe, which is usually involved in spatial perception; and his right occipital lobe, which has a prime role in vision (Roll & Persinger, 1998b; Roll et al., 2002). These findings are consistent with others in the parapsychological literature that suggest ESP may be associated with alpha waves, as well as the functioning of the right brain hemisphere (for reviews, see Alexander, 2002; Krippner & Friedman, 2010; Williams, 2011; Williams & Roll, 2008).

Thus, while not all of the tests that the PRF conducted with mediums and psychics were successful, there were some that did seem to show some promise, in terms of successful ESP performance being produced under controlled conditions, and in terms of what they might be able to tell us about psychic abilities in general.

¹² For more detailed descriptions of these and other experiments that the PRF conducted with Harribance, see Roll and Williams (submitted).

Laboratory Studies of Out-of-Body Experiences

For most people who have had one, an out-of-body experience (OBE) is marked by the personal conviction that one's own self has left the physical body and taken up a position somewhere outside of it. From this position, people may have the experience of seeing their own bodies from an external perspective and viewing their immediate surroundings as though they were separate bystanders. In some cases, people have apparently been able to venture some distance away from where their bodies are located and perceive the environment to a degree beyond the range of their body's sensory-motor system, suggesting a possible ESP component to their OBE. Less frequently, they may be able to affect objects in the environment and cause physical events at a distance, which separately suggests a possible PK component. In any case, to the people who have had an OBE, the experience is often subjectively convincing that a separation of mind and body has taken place, and that the real self has moved outside the body.

As he once recounted in his autobiographical essay "My Search for the Soul," William Roll (1997) had several OBEs throughout the course of his life, and the perplexing nature of these experiences was one of the things that had first motivated him to pursue his career in parapsychology. He first began having OBEs in his teens, when he was living in Denmark during the German occupation that lasted throughout most of World War II. In one of his earliest experiences, he recalls awakening one night and climbing out of bed, wondering what had caused him to get up. Looking around his room, he soon found himself staring back at his own body, which was still lying asleep in bed. After the war, he went to study philosophy and psychology at the University of California at Berkeley, and had a similar kind of OBE while staying at the University's International House dormitory, which struck him with curiosity:

One afternoon, I wake up from a nap and go over to turn on the light by the door when I see my finger go through the switch, and then my body on the bed. Am I dreaming or really standing by the door, out-of-body? If a dream, should I not also have dreamt that I turned on the light? A strange charade, or perhaps my OBE self is actually by the door. If so, is this my immortal soul? (Roll, 1997, p. 54)

But it was his very last OBE that was perhaps the most intriguing and revealing, from a purely subjective standpoint. It occurred at his home in Durham, not long after the PRF had been established at Duke. He described it in the following manner:

One night I wake up in one of the clearest OBEs I have had. I step out of bed in my OBE body and walk down the hallway to the living room, which I find bathed in moonlight. As I stand in the doorway, I marvel at the clarity of the view – and regret I cannot verify I am actually there. I notice that a shadow from a circular table covers a corner of the rug. I have no way of knowing, I tell myself, that the shadow will fall exactly this way this night; finally, I can test my OBE vision. I go down on hands and knees on the rug to measure how far beyond its corner the shadow extends. Using my right hand as a measuring stick, I find the shadow overlaps the rug by one hand's length on either side. The experience is not only visual; as I press my hand against the floor, I feel the grain of the wood against my palm. With this precious measurement in mind, I hurry back to the bedroom, arouse my body and return corporeally to the living room to check the shadow. The room is black as soot. There is no moonlight or shadow. Could I have slipped into another time and seen a shadow of another night? I experiment but cannot bring the shadow back by either natural or artificial light. I conclude that the scene is a mixture of my memory of the room and my imagination of shadows on a moonlit night. I have been the victim of a hallucinatory hoax of my own making.

I recall that when I returned from the living room, my OBE body was not vertical, but walking at an angle of about 30 degrees from the floor. It was as if my legs were on a different plane than the visible one. I wonder if the inconsistency holds a clue to the experience. In any case my OBEs cease, perhaps because I have seen through them. (Roll, 1997, pp. 55 – 56)

Rather than representing any kind of actual journey outside the body, this account suggests that Roll's OBEs were more likely to have been the illusionary product of his own memory and imagination. Despite their illusionary nature, Roll's OBEs point to two important issues about OBEs that the PRF would later attempt to explore in the laboratory. First, Roll's attempt to verify his vision of the shadow being cast across the living room floor represents an active effort to explore the issue of whether the things that people perceive during an OBE actually reflect some part of the environment beyond the body, or whether they are all just a vivid product of one's own memory and imagination. In other words, do people perceive things that are real and verifiable, or is it all just an elaborate mental fantasy? For convenience, we can call this *the perceptual aspect* of the OBE.

Second, Roll's early pondering on whether his out-of-body form was a reflection of his immortal soul touches on the issue of whether or not there is really some *external aspect* to the OBE. In other words, is there really some part of us that actually leaves the body? As Roll's last OBE indicates, it is possible for people to receive a strong impression from vivid OBEs that they have left their body, when in actuality, they were probably still in it the entire time. By putting his OBE perceptions to the test, Roll came to realize that his OBEs were likely to have been an elaborate illusion, despite how real they felt. On the other hand, OBE perceptions that do seem to accurately reflect some part of the environment beyond the body may offer a hint of an external aspect, although it is also important to recognize that such perceptions could have arisen through ESP, without necessarily indicating an external aspect. Thus, we would need to find another (and perhaps clearer) way to determine whether or not there really is an external aspect to the OBE. If tangible evidence of such an external aspect was found, it could have strong implications for what might survive after the death of the body.

To explore the perceptual aspect, the PRF conducted several OBE studies in which the participants attempted to "project" themselves in their out-of-body form to a distant part of the PRF laboratory facility and perceive one or more targets that could be found there. In one unique study (Harary & Solfvin, 1977), the prime targets were auditory.

On each night of this particular study, a sound clip was chosen at random from a collection of pre-recorded sounds (which included bells, musical instruments, yodels, and sirens) and continuously played back for 15 minutes on a tape player located in a room of the PRF facility. This sound target was supplemented on random occasions by the presence of a researcher in the room, who acted as a visual target.

At a certain hour of the night, attempts were made by two groups of participants to leave their bodies and "fly in" to the room in their OBE form so that they could listen to the sound and determine whether the researcher was present there or not. One group consisted of six college students who had not previously had an OBE, but were trying to willfully induce one through various induction techniques. This group made their attempts from a room that was located about a quarter of a mile away from the PRF facility. The other group was comprised of two participants with extensive personal histories of OBEs, one of whom was the psychic Ingo Swann, who is probably best known for his success in the remote viewing studies conducted at the Stanford Research Institute in the 1970s (Targ & Puthoff, 1977/2005, Ch. 2). Swann and the

other experienced participant made their attempts across a much greater distance – from their homes in the New York area.

Neither the students nor the other experienced participant were able to correctly identify the sound targets to a statistically significant degree. However, on each of the two nights that he actively took part in, Swann was able to correctly identify the sounds and tell whether the researcher was present or absent, an outcome that has combined odds of 64 to 1 against chance ($p = .0157$). This seems to support the claims made by some people that they were not only able to see distant things during their OBE, but also hear them, as well.

The most extensive PRF studies of the OBE were conducted with psychologist Keith Harary (Morris, Harary, Janis, Hartwell, & Roll, 1978), who was then commonly known by his nickname “Blue.”¹³ As a psychology student at Duke in the early 1970s, Harary began working with the PRF as a research assistant. He reportedly experienced OBEs in his youth, and had apparently developed the ability to induce them at will through self-training. Regarding this, he had once stated:

To me, [the OBE] was a familiar state of mind I had practiced since childhood. I just relaxed my body as deeply as I could and imagined how it would feel to be someplace else. The more I relaxed, and the more intensely I focused, the more I felt as though I were no longer in my body but mentally present in that other place. (Harary, 2005, p. 78)

Although most of the OBE studies with Harary were not specifically designed to focus on the perceptual aspect, an element of the latter was usually incorporated in them to determine whether or not he was capable of identifying visual targets located in the room he was to “visit” in his out-of-body form (Morris et al., 1978, p. 14). In one study, the targets were large colored cut-outs of letters from the alphabet that had been placed on the walls of the room. Some of Harary’s responses seemed to indicate that he may have gotten at least a partial impression of the letters:

On five of nine occasions Harary’s description of the color of the target was close to the actual one. In three cases, he gave evidence of homing in on the general shape of the letters: In one case, he named three or four possible shapes, then said he also saw an *S* “as if you stood an *N* on its side.” The target was a *Z*. In another, he said the target was round or circular. It was a *Q*. In a third, he said the target was a *V* or something with a long diagonal: it was a *W*. (Roll, 1974, p. 416)

But despite these suggestive impressions, the overall results did not achieve statistical significance.

In another study, Harary tried to perceive the location where a person had been randomly placed in the room. There were three spots in the room where a person known to him could be, and on six occasions, Harary correctly identified the exact spot, whereas only one correct response would be expected by chance (Morris et al., 1978, p. 14). His success rapidly declined in later sessions, however, and the overall results were again non-significant.

In a third study, random objects placed on a table in the room served as targets. On one occasion, the target was a gas mask. Based on his impressions of it, Harary produced a sketch of something that resembled the base of the mask, and made reference to “glass,” which may have

¹³ This nickname reportedly stems from the period that Harary spent at Acadia National Park in Maine during his teenage years, and is meant to reflect his “... love of the peaceful sky and water around the park” (Harary, 2005, p. 76).

related to the goggles that were attached to the mask. Later on, he correctly chose the mask from a collection of five objects (p. 14).

In a similar fashion, participants who have tried to perceive concealed or distant targets in other OBE studies have shown varying degrees of performance: Some have shown notable success, while many others have not (for a review, see Alvarado, 1982). For instance, in studies that the American Society for Psychical Research (ASPR) in New York had conducted with Ingo Swann in the 1970s, Swann was asked to try and perceive visual targets placed on a shelf suspended ten feet above the floor of the room where he was sitting. In eight instances, Swann was able to correctly describe the basic details of the target to a significant degree ($p = .000025$), at odds of about 40,000 to one against chance (Mitchell, 1973).

Swann's success stands in stark contrast with the performance of about 100 volunteers who participated in the ASPR's OBE perception studies. Approximately 85% of them were unable to correctly perceive the target, even though they felt that they had done so (Osis, 1974, p. 111). The ASPR also conducted OBE studies with a psychic named Alex Tanous, in which Tanous would attempt to "travel" to another room in his out-of-body form and view a colorful target image that was presented as an optical illusion, which could only be clearly seen through the window a specially-built viewing apparatus (Osis, 1975).¹⁴ Although Tanous' overall performance did not reach significance, he did perform well in sessions where he had strong feelings of being out of his body and existing as "a spot of consciousness" or a focused pinpoint of light (p. 54).

In the late 1960s, Charles Tart (1968) conducted a study with a young woman he knew who had a personal history of having OBEs at night while she slept. He found that one night when she reported having an OBE in his laboratory, the woman was able to correctly read a randomly-chosen target number that had been placed on a shelf near the ceiling. When essentially the same test was tried with famed OBE adept Robert Monroe in other studies, Tart (1998) found that Monroe was unable to read the number, despite having very vivid and detailed OBE perceptions of his surroundings. Thus, results from studies that have explored the perceptual aspect of OBEs tend to be mixed. Those that are successful seem to most often involve individuals with histories of spontaneous OBEs, or who have become adept at inducing an OBE at will.

To explore the external aspect, the PRF carried out several detection studies in which Harary attempted to leave his body at randomly determined times and "project" himself in his out-of-body form to certain rooms where people, small animals, or measuring instruments were located to serve as possible "detectors" of his out-of-body "presence" (Morris, 1974; Morris et al., 1978, pp. 4 – 13). Most of the human detectors were people personally known to Harary, or were casual acquaintances. Overall, their results were mixed: some seemed to respond to Harary's out-of-body presence under certain testing conditions, while others did not. Those who did seemed to be most successful when they were mildly distracted, and not particularly trying to "detect" Harary's presence. According to Harary (2005), the success that these people exhibited may have

¹⁴ This apparatus was built specifically to address the question: "Are the perceptions of the target that a person has during an OBE due to (in-body) ESP, or are they the result of some direct perception of the target that the person has while standing in front of the apparatus in their out-of-body form?" The optical illusion was intended to shed some light on this. The illusion can only be clearly viewed in one way – directly through the window of the apparatus. Thus, in order to correctly perceive the target, it is assumed that the person would have to be there (in some sense) in their out-of-body form in order to gain the proper perspective to clearly see the illusion. On the other hand, if the person is able to perceive the target as it is (i.e., without the illusion), then this might be more indicative of ESP (Osis, 1975, p. 53).

been due to their being sensitive to "... everything from passing cars to creaks in the floorboards" (p. 78).

Certain animals that were regularly being cared for by Harary showed no clear changes in their behavior during the periods of his attempted "visits." Small rodents such as gerbils and a hamster spent most of the periods chewing on the bars of their wire cages, or quietly resting. Although a snake seemed to be quite active during one initial period, its behavior was inconsistent and work with it was halted after a short time.

However, an interesting and fairly consistent result was obtained with a nine-week old male kitten that Harary had named "Spirit." At the time he was adopted, Spirit seemed to respond strongly when Harary first knelt down beside the litter of kittens. Preliminary tests with Spirit and his sibling, named "Soul," further indicated that Spirit became less active during Harary's OBE periods, while Soul did not. This led to a formal test series that was focused around Spirit's behavior to see if the little kitten could possibly function as a "detector."

During the formal tests, Spirit was placed in a wooden enclosure 80 inches long, 30 inches wide, and 10 inches high. The floor of the enclosure was divided with tape into an array of 24 individually numbered squares that would be used to monitor Spirit's movements during the tests. Each test was comprised of four periods: two OBE periods and two control periods. During the OBE periods, Harary was asked to try and "visit" Spirit in his enclosure located in a distant room, to experience the feeling of comforting and playing with the kitten, and to fix his "location" toward the rear of Spirit's enclosure. During the control periods, Harary turned his attention away from Spirit and casually conversed with the researchers who were monitoring him.

Throughout both periods, two other researchers continually monitored Spirit's activity while the kitten was in the enclosure, keeping track of the number of times that Spirit vocalized (i.e., the times he "meowed") and counting the number of floor squares that the kitten crossed into while he wandered around the enclosure. To ensure that their actions did not influence Spirit's behavior, the researchers tried to make very little noise, and avoided Spirit's gaze when the kitten looked up at them.

Overall, the results were quite striking: During the control periods, Spirit "meowed" a total of 37 times. During the OBE periods, however, the kitten did not meow once! Furthermore, Spirit was less mobile during the OBE periods as compared to the control periods, as evidenced by the average number of floor squares he crossed into in every 100-second interval. In control periods, Spirit crossed into an average of 3.54 squares. But in the OBE periods, he crossed into an average of only 0.21 squares. This was a significant reduction in movement, with odds of greater than 100 to 1 against chance. These results indicate that Spirit showed a fairly consistent response across the OBE periods: he became quieter and less active. This suggests that Spirit may have been responding to *something*, although it is unclear whether it could have been Harary's out-of-body "presence," or an ESP-related correlation or "connection" with Harary at a distance.

The measuring instruments, which were designed to register changes in the surrounding physical environment (such as shifts in light, temperature, and electromagnetism), did not serve so well as possible detectors. Across all the tests in which they were used, none of the instruments registered a clear change in "response" to Harary's "visits."

A different outcome was obtained in a separate detection study conducted by the ASPR using another kind of measuring instrument: strain gauges (Osis & McCormick, 1980). In that study, Alex Tanous again attempted to "travel" to a distant room in his out-of-body form and view a colorful target image through the viewing window of the optical illusion apparatus described previously. To explore whether Tanous' out-of-body form could be "detected" at the

viewing window of the apparatus, a small custom-built chamber with a rudimentary shield against electromagnetic signals was placed in front of the optical apparatus. Inside this chamber were two metal sensor plates attached to strain gauges, which were sensitive to the slightest movements and vibrations. It was thought that if Tanous was, in some sense, tangibly “present” in front of the optical apparatus in his out-of-body form, then perhaps it might be possible to “detect” his form in the chamber through the movement of the plates in “response” to his “presence,” which would activate the strain gauges and register a measurable electrical signal. In line with this idea, activation of the strain gauges was significantly higher at times when Tanous correctly described the target image in the optical apparatus, as compared to the times when he was incorrect ($t = 2.16$, $19\ df$, $p < .05$, two-tailed), at odds greater than 20 to 1 against chance. Similar to the results with Spirit, this suggests that the strain gauges were responding to *something*, although it is not too clear whether it could have been Tanous’ out-of-body “presence,” or a possible PK effect occurring in conjunction with Tanous’ attempts to view the target image via ESP.

Although they are a bit difficult to interpret, the results of these detection studies indicate that in some instances, certain detectors seemed to exhibit some kind of “response” during the times that Harary and Tanous were supposedly out of their bodies. This suggests that further study of the external aspect of the OBE may be warranted, in order to see if these kinds of “responses” can be consistently repeated, and to shed further light on whether the external aspect really does represent something external from the body.

During some of the studies conducted with Harary, the PRF monitored certain aspects of his physiology to see if any notable changes occurred in conjunction with his reported OBEs (Janis et al., 1974; Morris et al., 1978, pp. 14 – 16). Compared to his “Cool Down” periods (i.e., the periods in which he relaxed in preparation for having an OBE), Harary showed significant decreases in the skin voltage recorded over his left hand during his OBE periods. Skin voltage is usually interpreted as a measure of nerve arousal, and a decrease like this indicates that Harary’s nerves were gradually becoming calmer, consistent with his relaxation efforts. Yet, in a curious contrast, other measures had indicated that his heart rate and breathing had significantly increased during the OBE periods, suggesting a state of mild bodily arousal. These increases were not overtly apparent, however, and also gradually appeared over the course of Harary’s OBEs. These opposing findings currently make it difficult to characterize Harary’s overall state during an OBE in any particular way.

Since many OBEs occur during sleep, one might consider the possibility that at least some of them may be tied to states of lucid dreaming. To see if this might be case for Harary’s OBEs, measurements from his right eye were examined to see if there were any signs of rapid eye movement, or REM, which tends to be associated with dreaming (Morris et al., 1978, pp. 16 – 17). Contrary to this idea, Harary’s eye movements actually tended to decrease during his OBE periods. In a similar fashion, other studies have found either a reduction or a lack of REMs during reported OBE states (Krippner, 1996; Osis & Mitchell, 1977, p. 533; Tart, 1968), suggesting that some, if not all, OBEs are not related to dreams.

To date, only a small number of studies exploring the perceptual and external aspects of the OBE have been carried out. Because of the paucity of studies, our general knowledge about these aspects of the OBE remains somewhat limited, and further exploration can perhaps provide us with clearer answers.

Field Investigations of Apparitions and Hauntings

Stories, myths, and legends about apparitions or ghosts of the dead have been a part of human culture from time immemorial, and seem to be found in many cultures around the world. An idea commonly inherent in this kind of folklore is that after death, a person's spirit may linger around in a certain place that was once inhabited by that person, or was otherwise associated with him or her, giving rise to the notion of a *haunting* (and as Roll has pointed out several times previously, the term *haunting* comes from the same root as the word *home*). If such a notion of haunting amounts to more than just imagination and superstition, it would certainly seem to have implications for survival. For that reason, investigations of reported cases of apparitions and hauntings have long been a part of the field research side of parapsychology ever since the early days of psychical research, and the PRF has been able to conduct numerous field investigations of such cases over the years through the persistent efforts of William Roll and others.

In order to explore haunting cases and their possible relevance to the survival issue, it is important to make the distinction that Roll had made in his later years between *haunts* and *hauntings*. Very often, the two are confused because they appear to be nearly identical on the surface and the distinction between them is very subtle. However, for the purpose of exploring the relevance of hauntings to survival, this distinction is very important.¹⁵

Haunts are characterized by a collection of ostensibly anomalous occurrences and experiences that take place at a specific location over a long period of time (anywhere from months to even years). In many cases, this location is a house. The occurrences and experiences reported in haunts can include the following:

- People hear various percussive noises (e.g., loud crashes, thumps, and bangings) and/or sounds that imitate human activity (e.g., footsteps, doors opening and closing, and the sounds of people talking unintelligibly), which often appear to have no clear source;
- Electrical disturbances occur that lead to lights, appliances, and household electronics behaving erratically;
- Odd smells and odors may briefly permeate certain areas of the location;
- Noticeable changes in temperature may be felt in certain areas of the location, such that they seem colder (or even hotter) than other areas;
- While at the location, people may experience unusual bodily sensations (e.g., a sensation of having been touched), sudden feelings of fear or apprehension, and/or sense an unseen "presence;"
- Pets and other animals brought to the location may seem to act strangely, showing greeting or fear responses to nothing visible;
- Occasional movements or disturbances of furniture and other objects may occur without any apparent physical cause;
- Indistinct apparitional forms may be seen, usually in the forms of floating spherical lights ("orbs"), fleeting shadows, and/or misty shapes.

The field investigations that Roll personally conducted at reported haunt locations (see Roll & Persinger, 2001, pp. 154 – 160, for summaries) had frequently led to the discovery of anomalous electromagnetic fields (often produced by faulty household current) and/or geomagnetic fields (often produced by local seismic activity) that were present throughout the locations. These fields were anomalous in the sense that they were unusually high in magnitude as compared to baseline readings, or they tended to vary greatly across the space of a given location.

¹⁵ Some years ago, to distinguish between *haunts* and *hauntings*, Roll (1983a) had used the term *localized psi effects* (LPE) to refer to haunts. In more recent years, Roll and I occasionally used the similar term *localized anomalous occurrences* (LAO) for haunts in our correspondence, but this term never caught on anywhere else we used it.

Although the precise mechanisms have not yet been fully worked out, the working hypothesis is that such fields contribute to the reported haunt phenomena by affecting the activity of peoples' brains and inducing electrical surges within electronic equipment, among other conventional effects (Persinger & Koren, 2001; Roll & Persinger, 2001, pp. 161 – 162).

Magnetic fields that either exhibit similarly high magnitudes or vary considerably have been found in other haunt investigations, as well (e.g., Braithwaite, 2004; Braithwaite, Perez-Aquino, & Townsend, 2005; Persinger & Koren, 2001; Wiseman et al., 2002, 2003). Other physical factors that may contribute include increased background radiation (Radin & Roll, 1994) and natural shifts in temperature and humidity (Roll, Sheehan, Persinger, & Glass, 1996; Terhune, Ventola, & Houran, 2007).

Apart from physical factors, there may also be certain psychological factors which could influence peoples' subjective perceptions in a certain location. For example, some work has shown that certain contextual variables, such as a cultural belief in ghosts; suggestion and rumors that a place is haunted; and the appearance of the atmosphere within a room (e.g., certain structures, objects, and lighting conditions in a room that can make it look "spooky") can potentially influence peoples' perceptions and encourage them to interpret certain ambiguous events and sensations as being haunt-related (French et al., 2009; Harte, 2000; Lange & Houran, 2001; Lange et al., 1996).

As illustrative examples of haunt cases, I will briefly give the background for investigations that Roll made with other field investigators of two historic Scandinavian castles, Dragsholm and Engsö, both of which have long been reputed to be haunted (Nichols & Roll, 1999; Radin & Roll, 1996; Roll, Moody, & Radin, 1996).

Located in Denmark, Dragsholm Castle was built in the 13th century. It was originally a fortress and a bishop's residence, but after the Reformation, it became a prison to house accused prisoners of prominent social status. Its most famous prisoner was the Earl of Bothwell, who had been the third husband of Mary, Queen of Scots. The present owners have made it into a museum and hotel.

Three ghosts are said to haunt Dragsholm. One of them is *den Hvide Dame*, or "the White Lady." She is associated with the legend of a tragic love affair that reportedly stretches back several hundred years. According to the legend, the daughter of a count was involved with the castle's stable boy and became pregnant by him. Extremely upset over learning of both the affair and the pregnancy, the count killed the stable boy and had his daughter sealed up behind one of the castle's inner walls. This was initially thought to be just a legend until the 1950s, when the skeleton of a young woman was discovered in a recess behind a false wall on the castle's third floor, when workers tore the wall down during renovation. The White Lady reportedly manifests as a pale-colored, indistinct apparition that is sometimes accompanied by cold chills and sounds of screaming or sobbing.

Another female ghost of Dragsholm is *den Gra Dame*, or "the Gray Lady." She is thought to be the spirit of Magrete von Linde, a caretaker of the castle who died around 1720, and who has remained to look after the castle and its occupants. Her ghost is often associated with a room on the second floor of the castle where she lived.

The third ghost is thought to be the Earl of Bothwell himself, who died while still imprisoned in Dragsholm in 1758. His ghost reportedly manifests by sound rather than sight, in the form of loud booming or rumbling sounds that are occasionally heard coming from the castle's courtyard, which are thought to be the echoed rumblings of the horse-drawn carriage that came to take the Earl's body away after he died.

In addition to encounters with the three ghosts, there have been many guests, owners, and members of the castle's staff who have reported various kinds of ostensibly anomalous occurrences over the years (see Nichols & Roll, 1999; and Roll et al., 1996, for detailed accounts). For instance, the manager of the castle's restaurant once heard a loud slap on the table in the Gray Lady's room when he was talking with a waitress about the Lady. No one else was in the room at the time. While turning off the lights in the castle's empty theater, one of the guides suddenly felt a cold chill backstage and was overcome with anxiety. Some guests have experienced similar chills upon seeing bright, unexplained lights outside of the Gray Lady's room. A female guest who sensed a "presence" in her room felt like she was "tucked into" her bed afterwards. Two guests who had brought their dogs to the castle found that the dogs refused to move when trying to take them for a walk. Doors and windows have seemingly opened or closed by themselves, and the lights and water faucets have suddenly turned on and off.

Measurements made throughout Dragsholm of the ambient electric and magnetic fields revealed a rather strong electric field near the door to the Gray Lady's room. A search for the possible sources of this field revealed that it was likely associated with a fuse box located in the hallway just outside the room. Slightly higher amounts of background radiation were also detected toward the right side of the Gray Lady's room. This may have been related to the castle's granite walls, which can be a source of ionizing radioactivity (Radin & Roll, 1996). The legends associated with the ghosts of Dragsholm, particularly those of the White Lady and the Earl of Bothwell, seem to carry an element of tragedy with them that may lead some to accept the folkloric belief that they are the motivational basis for the ghosts to occupy the castle. If that is the case, then perhaps this may influence the perceptions of witnesses, such that they may be more likely to attribute certain haunt phenomena, which may have a purely physical basis to them, to ghosts.

Engsö Castle in Sweden has a history dating back to the 12th century, with its first known owner being King Eric, the patron saint of Stockholm. Since 1710, it has been the home of the Piper family. On its grounds are a gatehouse, a farm, and a church that has a legend of a "cursed" stone associated with it. Currently, the castle is uninhabited and the Piper family has made it into a museum.

Like Dragsholm, three ghosts are said to haunt Engsö. One is Brita Bååt, who received the castle as a wedding gift from her husband in 1598. To some, her rumored reputation for being a strict and cruel woman is reflected by the gray mourning dress she wears and the rather stern expression on her face in the painted portrait of her that hangs prominently on the castle staircase.

Another ghost is thought to be a hunchback dwarf named Anders Luxemburg, a favorite courtier of King Karl XII. He lived in the castle after the King's death, and died in 1744. His ghost has occasionally been witnessed on the grounds between the castle and the church, where he was buried.

The third ghost is not a human at all, but a dog named Cottillion, which had died while its owner was visiting the castle. The dog was buried in the castle's park, and since that time, its ghost has reportedly been glimpsed as it slips into the castle's drawing room. The sound of its claws can supposedly be heard against the stone floor, as well.

Compared to Dragsholm, Engsö has fewer reports of haunt experiences. This may be due to the fact that Engsö is uninhabited most of the time, and thus, there are likely to be fewer witness reports. Of the experiences that have been reported, several involve sightings of apparitional figures (Roll et al., 1996). For instance, a ghost resembling Brita Bååt has been seen on three occasions by Catharina Piper, the countess of Engsö. On each occasion, she was leading

a group of tourists on a tour through Engso when she noticed a figure in a gray dress on the stairs, which quickly vanished. An elderly friend of Countess Piper claims that she once saw a small figure run by during a theater performance, which she thought might have been the ghost of Anders Luxemburg.

Unusual sensations were experienced in a certain spot on the castle's third floor by Raymond Moody and Dean Radin during one of the investigations. When Moody approached this spot, he said he felt "... something which I can only describe as a twisting or a dislocation of myself in space ... And this was experienced almost like an energy or a forcing acting on me. Not like a physical force, but like an ... extrasensory force" (Roll et al., 1996, p. 262). When Radin entered the same spot, he felt "an internal rumbling, not exactly a sound, but more like a sense that there was a motor deep within the floor or walls, creating an infra-sound vibration" (p. 263). No clear source for this rumbling was immediately apparent.

Initial measurements taken of the spot on the third floor revealed no clear indications of electromagnetic anomalies or background radiation. Later measurements of the geomagnetic field, however, revealed a field magnitude of 752 milliGauss in this spot, compared to readings of around 650 milliGauss elsewhere in the castle (Roll & Persinger, 2001, p. 156). In addition, a significant negative relationship was briefly observed between the electric and magnetic field intensities measured just outside of a room on the third floor where Countess Piper had twice seen an apparition. In this case, as the electric field increased, the magnetic field decreased, and vice versa. This relationship was not seen in measurements taken before and after, and its meaning, assuming that is not simply a random fluctuation, is unclear. Lastly, monitoring of the background radiation at Engso revealed significantly higher levels of radiation compared to those found at four other castles in the region, including Dragsholm (Radin & Roll, 1996). This higher level of radiation at Engso may stem from the castle being built upon a large granite outcropping, which can be a source of ionizing radioactivity, as mentioned.

Certain aspects of the atmosphere of Engso may also suggest a possible source of psychological influence. For instance, in its function as a museum, the castle is filled with many kinds of antique paintings, furniture, and period costumes that are on display. Perhaps the antiquated feeling that one may get inside the castle from viewing these objects may lead to an impression of the castle as being a place where one might expect to find ghosts. These objects might also influence the kinds of ghosts that witnesses see. For instance, the close resemblance of the ghostly figure in a gray dress seen by Countess Piper on the stairs to Brita Bååt certainly seems to suggest the possibility that this ghost could have been influenced by the sight of Brita Bååt's full-figured portrait that hangs on the stairs.

As these illustrative examples seem to indicate, an important thing to recognize about haunts is that the phenomena reported at alleged haunt locations are likely to be explainable in terms of conventional physical and psychological factors; *there do not appear to be any clear parapsychological factors involved*. In other words, haunts may be purely physical and/or psychological phenomena, without any psychic components to them.

Hauntings, on the other hand, may be a rare exception. In the context that Roll used it, the term *haunting* refers exclusively to the rare cases that seem to contain a parapsychological or psychic component. This component is reflected in instances where one or more witnesses see a detailed apparitional figure that closely resembles someone who was known to have lived or worked at the reputedly haunted location in the past (and who is usually deceased). If it does not appear that the description of the apparition given by witnesses was influenced beforehand by contextual factors (such as the witnesses seeing a picture of the deceased person prior to seeing

the ghost, as may have been the case for Countess Piper in seeing the ghost in the gray dress on the stairs), then there may be some starting basis for thinking that the witnesses' experience of the apparition could have been mediated through ESP.

Haunting apparitions tend to stand in stark contrast from the kinds of apparitions that may be seen in haunts, which usually appear only as floating lights, shadowy forms, or misty, indistinct shapes, as mentioned. Their inherent ambiguity, as well as their overt similarity to known geophysical phenomena (e.g., ball lighting and "earthquake lights"), seem to suggest that haunt apparitions are more likely to have a purely physical or psychological basis, and are less likely to be ESP-mediated. In addition, Roll (1983a, p. 346) noticed that in several of his cases where the haunt apparitions were described by witnesses as being human-like figures, the appearance and personalities of the apparitions more often seemed to reflect the psychological needs and preoccupations of the *living*, rather than those of the dead. For instance, in a case involving an allegedly haunted furniture factory (Roll & Brittain, 1986), the owner often saw an indistinct apparitional figure in work pants and a checkered shirt at times when he needed to make important business decisions, which were also times when he felt he needed advice or assistance.

Similarly, in a case involving an allegedly haunted Japanese restaurant (Roll, Maher, & Brown, 1992), the restaurant's manager frequently saw two ghosts that were also occasionally seen by members of his staff. One ghost seemed to be a tall, slim man with a solemn and responsible demeanor, while the other seemed to be a short, obese, and intoxicated fellow with a very carefree personality. It was noticed that, when examined closely, the two ghosts seemed to reflect the manager's own personal needs, namely his need for mentorship and for occasional leisure time away from his strict managerial duties. On this basis, the manager considered the possibility that the two ghosts simply represented projected aspects of his own personality. And after the manager chose to leave the restaurant, the two ghosts were never seen again.

These two haunt cases suggest that the apparitions may have had their basis in the minds of the people who witnessed them. In contrast, haunting apparitions seem to reflect previous occupants of the allegedly haunted location, and may be suggestive of some form of survival. Although there have been a number of anecdotal examples of haunting apparitions, investigations of actual cases are quite scarce. As an illustrative example of a haunting case, I will briefly summarize a case that Roll had initially investigated in the late 1980s, known as the "Gordy" case (summarized in Roll & Persinger, 2001, p. 160)¹⁶:

Not long after her family had moved into a new home, a little girl named Heidi Wyrick met a man in her neighborhood who introduced himself as "Con," and who invited her to play on a swing hanging in a nearby yard. When Heidi asked for permission to do so, her mother asked her about the strange man she had encountered. In describing him, Heidi said that Con was wearing a bandage around one of his hands, as well as a T-shirt "with blood all over." Fearing that Con might be a kidnapper or a child molester, Heidi's parents had the neighborhood searched for the man, but he was unable to be found anywhere.

Later on, Heidi began speaking about another man she had met in the neighborhood named "Mr. Gordy," with whom she would regularly meet to play on the swing. Since Heidi seemed to be referring to people they had never seen before, her parents thought that "Con" and "Mr. Gordy" must be the girl's imaginary playmates, and stopped worrying.

Eventually, through a series of documents, Heidi's mother learned that an elderly gentleman named James Gordy, as well as a man named "Lon," had once lived in their

¹⁶ This case may be familiar to some readers, as it was profiled on the popular television show *Unsolved Mysteries* in the 1990s, and more recently, it was the focus of the Discovery Channel show *A Haunting in Georgia*.

neighborhood many years ago, and that Lon had lost his hand at a young age in a machinery accident. Heidi's descriptions of the two men had closely matched their photographs, and she was able to correctly pick them out of a random collection of photographs. Try as he might, Roll could find no normal way in which Heidi could have learned details about the two men prior to her parents' learning of their existence as real persons.

To a lesser degree, another case investigated by Roll in the 1980s seems to suggest a possible haunting apparition (Roll, 1991; see also Duncan & Roll, 1995, pp. 66 – 69). In this case, however, the apparition was not *seen*, but *heard*:

At the request of the producers of the popular TV show *Unsolved Mysteries*, Roll spent ten days investigating the alleged haunting phenomena occurring aboard the *Queen Mary*, the famous British cruise ship that is now permanently docked in Long Beach, California, to live out the rest of its days as a hotel, museum, and popular tourist attraction. According to the ship's chief engineer and other members of its crew, unusual sounds could be heard coming from the lower forward compartments near the ship's bow on more than one occasion. The engineer later described what he'd heard in the following manner:

It was my job to keep an eye out for leaks in the hull ... One night when I was checking the bow compartments from the top deck, I heard water running down below. I thought that a pipe must have burst or that the hull had sprung a leak, so I hurried below to inspect the damage. As I approached the bow, the sounds of water faded and were replaced by tapping sounds and then a sensation of shuddering and vibration, which was followed by human voices shrieking and moaning and a gravelly voice that seemed to be talking in the distance. (Duncan & Roll, 1995, pp. 66 – 67)

According to the engineer, this experience occurred again on seven or eight separate occasions, and each time he checked the compartments immediately after hearing the sounds, he never found any signs of damage or a leak, nor did he find anybody in the area.

To see if these sounds represented something objective (rather than being purely subjective; i.e., being “all in the mind”), Roll decided to try and record them by leaving a voice-activated tape recorder overnight in the bow area. When he retrieved it in the morning and played the tape back, he discovered that “... the tape recorder picked up a strange sequence of noises. You could hear heavy blows of metal, sounds of rushing water and voices, one of which, low pitched and gravelly, was almost intelligible” (Roll, 1991, p. 58). When he played the tape back to the engineer (without telling him beforehand what had been recorded on it), the man became visibly emotional and acknowledged that those were the sounds that he often heard himself while in the bow.

On the surface, the nature of the sounds seemed consistent with a tragic event that had occurred early on in the *Queen Mary*'s sailing history, when it had served as a military transport during World War II. (In order to camouflage it better during the war, the *Queen Mary*'s exterior had been painted over in a pale grey color, and ironically, due to its pale appearance and its rapid sailing speed, the ship was known as “The Grey Ghost” at the time.) During an evasion maneuver off the coast of Scotland in October of 1942, the bow of the *Queen Mary* accidentally collided with the British battle cruiser *Curaçoa*, which had been sailing alongside it. Although its bow was smashed about six to eight feet inward, the *Queen Mary* suffered no other damage from the collision. However, the *Curaçoa* was torn in half by the impact, resulting in the deaths of over 300 British sailors. When he had first heard the sounds in the bow, the engineer was not aware of this tragic accident between the *Queen Mary* and the *Curaçoa*, and it was only after he read about it in a book that he noted the resemblance: “You hear the thump, you hear the vibration, you hear

water gurgling, you hear crying and shrieking. If I had heard about that (the collision), I'd say, well, it ties in, but I didn't know about it till years later" (Roll, 1991, p. 58). This seems to indicate that the engineer's experience was not influenced by prior knowledge. Although it has not yet been possible to rule all ordinary explanations for the ghostly sounds heard in the bow of the *Queen Mary*, the close resemblance of the sounds to a tragic event in the ship's history does seem to leave open the possibility that they could involve a psychic aspect.

A possible psychic aspect to hauntings may also be suggested by the statistically significant results obtained by Michaelleen Maher (1999) in five reported haunting cases that she investigated using the quantitative method initially developed and applied to field investigations by Gertrude Schmeidler (1966). In cases using this method, Maher asked a group of psychics to individually tour an allegedly haunted location and try to "sense" the areas where witnesses had previously seen a ghost. Once they "sensed" an area, the psychics were asked to mark that area on a floor plan. If they further received an impression that seemed to relate to the ghost's actions or personality, they were asked to find the word that described this action or personality trait on a checklist of descriptive words and circle it. On another occasion, a control group (comprised of people who did not think they were capable of "sensing" a ghost) toured the location and did the same thing, this time marking areas on the floor plan that just looked "spooky" and guessing what the ghost's actions and personality must be like.

Later when the responses of the psychics and the controls were both statistically compared against the responses given by the witnesses, Maher (1999) found that the psychics' floor plan responses seemed to significantly correspond with the witnesses' responses ($p = .001$, associated with odds of 1,000 to one against chance), whereas the controls' responses generally did not. The difference in the performance of the psychics and the controls was also statistically significant ($p = .013$), with odds of about 76 to one against chance. This suggests that the psychics may have been responding to *something* within the haunted locations, whether it was an apparition, the "spooky"-looking atmosphere of the sites, or something else. The indication that the controls' responses generally did not correspond with the witnesses' responses seems to argue against the likelihood that the psychics were simply responding to the "spooky" atmosphere, and may therefore begin to tip the scales toward the possibility that they may have been responding to a psychic aspect to the reported hauntings.¹⁷

Although they seem to be quite rare, haunting cases seem to provide the most promise of a possible survival aspect when it comes to the general topic of apparitions and hauntings. For that reason, the focus of future field investigations should perhaps be on such cases.

Field Investigations of Recurrent Spontaneous Psychokinesis (RSPK, or "Poltergeist")

After completing his thesis studies in parapsychology under Professor H. H. Price at Oxford University in England in 1957, William Roll received an invitation from J. B. Rhine to come to Duke University and join the staff of the Parapsychology Laboratory. As Roll had once recalled of this particular period of his life:

While at Oxford, I had heard about objects moving without tangible aid, then known as poltergeist, but had no interest in the alleged phenomenon at all. If an Oxford college had been the scene of a

¹⁷ It should be noted that the controls seemed to produce statistically suggestive correspondences on the descriptive checklist ($p = .07$), offering some hint that this aspect of the responses regarding the ghost may have had been influenced through folklore, imagination, or superstition.

poltergeist outbreak, I doubt I would have bothered to stop by. As far as I was concerned, Rhine had shown the way to an understanding of psi, and this went through the door of the laboratory. But my work at Duke was not going anywhere. To my surprise, Rhine suggested that I join Dr. J. G. Pratt, the assistant director of the lab, on a poltergeist investigation. Rhine had launched me on a journey I would not otherwise have taken. (Roll, 2007, p. 114)

And thus with the help of Rhine, Roll began his well-known research into so-called poltergeist phenomena. This investigation led him and J. Gaither Pratt to the home of the Herrmann family in Seaford on New York's Long Island, where the Nassau County Police Department had been looking into reports of unusual physical disturbances occurring inside the home (Pratt & Roll, 1958; Roll, 1972/2004, Ch. 2). The police report gives a sample of some the disturbances that occurred:

On Sunday, Feb. 9th, 1958, at about 1015 hours [10:15 A.M.] the whole family was in the dining room of the house. Noises were heard to come from different rooms and on checking it was found that the holy water bottle on the dresser in the master bedroom had again opened and spilled, a new bottle of toilet water on another dresser in the master room had fallen, lost its screw cap and also a rubber stopper and the contents were spilled. At the same time a bottle of shampoo and a bottle of Kaopectate in the bathroom had lost their caps, fallen over and were spilling their contents. The starch in the kitchen was also opened and spilled again and a can of paint thinner in the cellar had opened, fallen and was spilling on the floor. The complainant then called the police department and Patrolman J. Hughes of the 7th Precinct responded. While Patrolman Hughes was at the complainant's home, all of the family was present with him in the living room when noises were heard in the bathroom. When Patrolman Hughes went into the bathroom with the complainant's family he found the medicine and the shampoo had again spilled. The complainant further stated that at the time of occurrences there were no tremors in the house, no loud noises or disturbances of any kind that could be noticed. None of the appliances were going at these times and the complainant has no high frequency equipment at all in the house (Pratt & Roll, 1958, p. 92; Roll, 1972/2004, p. 14).

Although the disturbances were short-lived and Pratt and Roll were not able to directly witness them, they had been present when an unusual event occurred in another part of the house. On that occasion, they had been upstairs with the family when "a loud dull noise" was heard that seemed to come from the floor or lower wall between the kitchen and the bathroom. When they went down into the basement, they found a bleach bottle lying on its side in a box next to the washing machine. The cap of the bottle was lying on the floor a short distance away. No one had been in the basement in the hour prior to the event, and the small amount of moisture under the cap suggested that the event was recent. If it had been staged an hour before, it is likely that the liquid would have already evaporated away by the time the event occurred.

In addition, the noise and the distance at which it was found suggested that the cap had not been screwed off the bottle, but had inexplicably "popped" off. The possibility that this "popping" could have simply been the result of pressure build-up within the bottle appears unlikely on the basis that the investigators were unable to adequately reproduce the phenomenon in subsequent tests with bottles of pressurized gas. In these tests, the gas began to seep through the screwed-on top without loosening it, or the bottle exploded while still retaining its cap (Pratt & Roll, 1958, pp. 99 – 101; Roll, 1972/2004, pp. 19 – 20). Similarly, it seems no other conventional physical explanation could adequately account for all of the other disturbances reported in the case (Pratt & Roll, 1958, pp. 110 – 112; Roll, 1972/2004, pp. 21 – 22).

When examined closely, Pratt and Roll (1958) noticed that the physical disturbances in the Herrmann family home mostly seemed to focus around the family's 12-year-old son, Jimmy. This

was indicated by the fact that most of the disturbances seemed to occur only when Jimmy was at home, and when he was awake. This led them to consider the possibility that the disturbances represented a large-scale form of psychokinesis (PK, or “mind over matter”) on the part of Jimmy, and they thus coined the term *recurrent spontaneous psychokinesis* (RSPK) as a way to label and describe them. This seemed to “dispel” the traditional, folkloric belief that poltergeist phenomena were due to the mischievous acts of a “noisy spirit” (as the term *poltergeist* implies, when translated from its German roots), and instead offered support to physicist and psychical researcher Sir William Barrett’s (1911) early suspicions that the phenomena were associated with a living person.

Roll went on to personally investigate a number of reported cases of RSPK under the auspices of the PRF (Roll, 1972/2004; Roll & Persinger, 2001, pp. 126 – 143). Here I will briefly summarize the three cases he investigated which seemed to provide the strongest evidence to indicate that the reported phenomena were genuine:

The Miami Case: In January of 1967, Roll and Pratt investigated a series of RSPK disturbances occurring in a Miami shipping warehouse which specialized in the distribution of souvenir merchandise (Roll, 1972/2004, Ch. 9 & 10; Roll & Pratt, 1971). According to the owners and employees, small souvenir objects (such as beer mugs, highball glasses, and ashtrays) would frequently fall off the storage shelves and sometimes break. In some instances, these objects landed several feet from their original location, suggesting that they had taken flight in order to land where they did. Larger objects, such as cardboard boxes, also occasionally fell and spilled their contents on the warehouse floor. Although one of the owners had initially attributed these apparent “accidents” to the carelessness of his employees, it was soon noticed that they occurred most often in the presence of Julio, a 19-year-old Cuban shipping clerk at the warehouse.

The disturbances were still occurring in the warehouse when Roll and Pratt arrived, and this allowed them the rare opportunity to conduct a semi-controlled experiment. They noticed that there were certain shelves from which objects repeatedly fell or took off, so they placed target objects on these shelves to see if these objects would later move. Roll and Pratt maintained some degree of control over the situation by inspecting the areas around the target objects for magical devices beforehand, and closely monitoring the actions of the employees, particularly Julio. At least ten of the target objects placed on the shelves by Roll and Pratt had moved at times when one or both of them had the area under surveillance. Seven of the objects moved when Roll and/or Pratt had been directly watching Julio, and no one else was close enough to the objects.

In one such instance, Roll was watching Julio place a plastic alligator figure on a storage shelf in the hopes that the figure would become a target object. At that same moment, a highball glass sitting on another shelf four feet behind Julio fell to the floor and shattered. Roll standing was five feet away from Julio, and he could see that both of Julio’s hands were occupied at that moment: the alligator figure was in his right hand, and his work clipboard was in his left hand. There were only two other employees in the warehouse at the time, and they were both more than 15 feet away from the glass when it fell. It did not seem plausible that either of them could have picked up the glass and thrown it because no one had been near it since Roll and Pratt had initially placed it there. In the process of placing it, Roll and Pratt had also checked the glass for strings or magical devices with which the event could have been staged, thus excluding the possibility of trickery.

The Olive Hill Case: In December of 1968, Roll and John Stump investigated various object movements and breakages occurring in the Olive Hill, Kentucky home of John and Ora

Callihan (Roll, 1972/2004, Ch. 11). Living with the elderly couple was their 12-year-old grandson Roger, around whom the disturbances seemed to focus. Fragile objects such as ceramic lamps, porcelain figurines, and glass bottles were said to move and often break (so much at times that the broken pieces had to be removed by the bucketful), and larger objects such as coffee tables and chairs were displaced. At least ten of the disturbances occurred when Roll or Stump were watching Roger, and they could see that he had no direct contact with the disturbed object.

In one instance, Roll was following Roger into the kitchen. Upon reaching the sink, Roger turned around to face Roll when the kitchen table located to Roger's right suddenly rose up into the air, rotated around horizontally about 45 degrees, and landed down on the backs of the chairs surrounding it, with all four of the table's legs being up and off the ground. Roll had both Roger and the table in full view at the time, and he did not see the boy touch the table. No one else was in the kitchen, and no one had been since earlier in the evening, when Roll was having coffee with Roger's parents in the kitchen. There did not seem to be an instance in which the table could have been rigged beforehand.

The Tina Resch Case: In March of 1984, Roll's attention was drawn to the RSPK disturbances reportedly occurring in the home of John and Joan Resch in Columbus, Ohio. Objects from as small as a hair barrette, to as large as a loveseat, were seen moving by various witnesses. A few electrical malfunctions also occurred, with room lights and appliances apparently turning on and off by themselves. At first, no source could be found for the disturbances, but it soon became apparent that they focused around the Reschs' 14-year-old adopted daughter, Tina.

At first, the case did not seem promising. Roll learned before his arrival at the home that a TV news crew had captured footage of Tina pulling over a lamp in an attempt to imitate the disturbances. In addition, he noted that several of the events occurring during the first three days of his visit could have been staged. But then, Roll began witnessing a series of occurrences in Tina's presence that he could not easily dismiss as fraudulent.

In one such occurrence, Roll was watching Tina mop up some water she had accidentally spilled when he heard a sound behind him. Turning to look, Roll found that an empty teacup he had placed on Tina's bedside table was now lying on a pile of clothes in Tina's closet 12 feet away. Roll had Tina in full view at the time, and he noted that she could not have thrown it because both of her hands were occupied with the mopping. In addition, Tina was prevented from easily grabbing the cup by a bed that stood between her and the table (Roll & Storey, 2004, pp. 128 – 129).

In another occurrence, Roll was helping Tina to replace a picture that had fallen off the wall in the bedroom of Tina's parents (pp. 134 – 137). Noticing that the hanging nail for the picture was on the floor, Roll retrieved it and set down his tape recorder on top of a nearby dresser. Using a pair of pliers as a makeshift hammer, he was hammering the nail back into the wall with Tina standing next to him when a loud thud was heard. Turning to look, he found his tape recorder lying on the floor about eight feet from where he had placed it. He noted that Tina had been standing quietly the entire time.

Placing the pliers on the same dresser, Roll went across the room to check the recorder, with Tina ahead of him so that he could watch her movements. As he was testing the device with Tina in front of him, another loud sound was heard, which was apparently caused by the pliers moving from the dresser and striking the headboard of a bed about six feet away. With Tina in his view, Roll saw no indication that she had grabbed the pliers and thrown them.

To counsel Tina and test her for PK, Roll had her brought to Spring Creek Institute in North Carolina in October of 1984 (Baumann, Stewart, & Roll, 1986; Roll & Storey, 2004, Ch. 17 & 18; Stewart, Roll, & Baumann, 1987). Two custom-made PK test devices had been constructed by neurobiologist Stephen Baumann, and although Tina's performance with them initially seemed promising, there were issues with the test design that made the results difficult to evaluate statistically. However, during breaks in the testing, small objects that had been set out on a table as PK targets began moving at various times. In one instance, Baumann and psychotherapist Jeannie Lagle Stewart were standing in front of the table, packing away a video camera. They were facing Tina when they heard a loud noise out in the hallway behind her. Heading towards the source, they found a 12-inch socket wrench, which had been sitting on the table, now lying on the floor in a storeroom 18 feet away. A large dent had been left in the storeroom door, indicating the force of the wrench's impact. Since Baumann and Stewart had been blocking her access to the table the entire time, it did not seem possible that Tina could have grabbed the wrench and thrown it without them noticing. Part of the event was also independently witnessed by engineer William Joines, who was working in a room down the hall from where Baumann, Stewart, and Tina were located. Hearing voices down the hall, Joines looked up and through the glass panes fixed into the wall of the room, he witnessed the socket wrench fly by in the hallway (Roll, 2007, p. 117). At least 16 other objects had moved within the controlled space of the Spring Creek laboratory while the researchers were closely watching Tina, with three of them coming from the table of target objects.

These and other cases investigated by Roll have revealed several characteristics that seem to be rather common to RSPK. For brevity, only those that seem to be the most common shall be mentioned here; others have been extensively discussed by Roll in several of his other publications on RSPK (e.g., Joines & Roll, 2007; Roll, 1972/2004, 1977, 2007; Roll & Persinger, 1998a, 2001, pp. 126 – 153)¹⁸:

In a majority of RSPK cases, the disturbances are characterized by the movement of small household objects, with the occasional displacement or full movement of larger objects such as tables, sofas, and other pieces of furniture (as in the Olive Hill and Tina Resch cases). Percussive sounds such as knocks, thumps, and raps, may also occasionally be heard. The disturbances tend to last only a short period of time, usually in the range of two to five months.

At the center of these disturbances is a certain individual, known as the *RSPK agent*, who is often (but not always) of adolescent or teen age, and who is faced with a certain living or work situation that seems to bring a considerable amount of psychological tension, stress, or conflict into his or her life. For instance, there may be strained relations between the agent and other members of his or her own family. This was the living situation in the Tina Resch case (Roll & Storey, 2004), where it seemed that Tina felt neglected of attention from her foster parents. In order to receive attention, she often behaved badly, which would commonly lead to her quarreling with her foster parents, further straining their relations. Occasionally, it would also result in verbal and physical abuse. In a work situation, the agent may be feeling pressured, or may be at odds with the boss or co-workers. This was the situation in the Miami case (Roll, 1972/2004, Ch. 9 & 10; Roll & Pratt, 1971), where Julio seemed to harbor some personal resentment towards one of the souvenir warehouse owners, who he may have “seen as phony and cheating” (Roll,

¹⁸ In 2011, Annalisa Ventola and I had prepared a basic primer on poltergeist phenomena for paranormal enthusiasts and the general public that also summarizes the characteristics of RSPK in slightly more depth. This primer is still freely available for download as an Adobe PDF file from Annalisa's Public Parapsychology website (http://www.publicparapsychology.org/Public_Parapsych/Poltergeist_Phenomena_Primer_Final.pdf)

1972/2004, p. 171), according to the results of one psychological test administered to him. Other psychological evaluations of Julio also suggested that he may have occasionally had feelings of unworthiness and guilt over not living up to his family's expectations, feelings that can also be a potential source of psychological tension or stress.

Of course, these kinds of situations are ones that many people regularly face in the course of everyday life. But unlike in conventional everyday situations, where people deal with these situations through emotional expression, health issues, social diversion (e.g., entertainment), and therapeutic counseling, the manner in which the situation is dealt with by the agent in RSPK cases seems to be quite unconventional: the tension, stress, or conflict that is felt by the agent is often repressed, and instead seems to be expressed indirectly through the RSPK disturbances. This is suggested by the observation made by Roll that the "... disturbances often involve objects that belong to individuals with whom the central person [i.e., the agent] has an emotional link," which "is usually aversive" (Roll & Persinger, 2001, p. 149). For instance, many of the objects that moved in the Seaford case belonged to Jimmy's parents. Psychological testing indicated that Jimmy felt strong anger toward his strict father, and he may have harbored certain dependency needs from his mother that were unmet (Roll, 2003, pp. 75 – 76). Similarly, in the Tina Resch case, Roll (2003, p. 78) noted that the "... original incidents seemed to reflect Tina's negative feelings about her family and herself." To use a term coined by J. B. Rhine (in Roll, 1972/2004, p. xiii), the disturbances seem to reflect a form of "parapsychopathology."

In several cases it has been found that once the agents are able to address their situations and cope with the tension, stress, or conflict in their lives in a therapeutic way, the RSPK disturbances often vanish along with their problems. In addition to Roll's cases, similar psychological situations have been seen in cases investigated by others (e.g., Eisler, 1975; Gerding, Wezelman, & Bierman, 1997; Hastings, 1978; Mathews & Solfvin, 1977; Palmer, 1974; Rogo, 1986; Teguis & Flynn, 1983).

The fact that the RSPK disturbances tend to occur within the context of a psychologically tense or stressful situation seems conceptually consistent with the kinds of situations in which other spontaneous instances of PK have occurred (Roll, 1983a). In a survey of the small number of PK cases she had in her spontaneous psi collection, Louisa Rhine (1963) found that many of the cases occurred in conjunction with a time of crisis (although the person experiencing the PK incident may not have been aware of it at the time). In addition, she discovered a few cases in which it seemed that at the time the person experienced the PK incident, he or she was "definitely in an emotional state" (p. 95). One of those cases was the following one from a woman in Philadelphia:

I was reading an article on Jimmy West, the crippled orphan who did so much for child welfare when he grew up. His experience as a child seemed so appalling to me that it made a deep impression. He had a tubercular hip and was accused of malingering. The hospital discharged him as incurable and refused to readmit him. I don't know when my mind has ever been so stirred and perhaps that is why it happened. At any rate, as I put my magazine down and got up from my kitchen chair, we heard a loud sound in the living room. There was no one in there – not even the dog or cat, for I looked. The sound had been made by a book's falling out of the book case by itself. When I picked it up, I could hardly believe my eyes; for it was a book on surgery for children. (Rhine, 1963, pp. 95 – 96)

Roll (1983a) noticed that this woman's stirred up emotions sound similar to the feelings that some RSPK agents seem to feel. And indeed, in discussing her PK cases, Louisa Rhine (1963) pointed out that the cases "... suggest that a strongly emotional situation, usually deeply unconscious, is a

factor in the production of the phenomena. These ideas, of course, are not new to those who have been concerned with the study of poltergeist effects” (p. 121). And similar to RSPK, several of the objects that were disturbed in Rhine’s PK cases were those belonging to (or otherwise associated with) someone emotionally linked to the experient.

The precise mechanisms that may be involved in producing RSPK are still not fully known, although through close examination of his cases with other researchers, Roll seems to have found a few possible correlates. One of them is neuropsychological (Roll, 2007), while the others are physical (Joines & Roll, 2007).

Neuropsychological: In a survey of 116 RSPK cases reported in the parapsychological literature, Roll (1977, p. 400) found that 22 of the 92 agents involved in the cases (24%) were either diagnosed with epilepsy, or showed behavioral signs (including muscle contractions, coma, convulsions, fainting spells, “trances,” and seizures) that are often considered to be symptoms of epilepsy (Kolb & Whishaw, 1990, pp. 141 – 143). In one case that he investigated (Solfvin & Roll, 1976), the suspected RSPK agent was a 21-year-old male diagnosed with grand mal epilepsy that apparently resulted from a serious back injury. It was noticed that the RSPK phenomena, which included object movements and loud booming or pounding sounds, seemed to become most active whenever the young man’s epilepsy was treated with medication. In another case, where the brain waves of a 13-year-old boy who had been at the center of an RSPK outbreak in Newark, New Jersey were monitored using an electroencephalograph (EEG), a brief 14 Hertz brain wave “spike” pattern was observed on the boy’s EEG when he felt drowsy while resting. Had this “spike” been more pronounced, it could have been indicative of complex partial epilepsy (Roll, 1972/2004, pp. 175 – 176). And during his investigation of the Tina Resch case (Roll & Storey, 2004, Ch. 19), Roll had asked Mrs. Resch to have Tina examined by a neurologist. No clear signs of epileptic spikes were found on Tina’s resting EEG, but the examination revealed that she did occasionally exhibit muscle jerks, blinking, twisting, and incessant finger movements. Tina was eventually diagnosed with a mild form of Tourette’s syndrome, a condition characterized by sporadic, involuntary spasms (or “tics”). Like epilepsy, Tourette spasms are thought to be related to sudden and brief electrical discharges that repeatedly occur within brain neurons. Another neurological test performed by the late Stephen Baumann (1995, in Roll & Storey, 2004, pp. 218 – 219) revealed that Tina showed abnormally fast electrical impulses in one part of her brainstem. Roll pointed out that Tina’s neurological conditions may have been related to a head injury she received when she was pushed off a school bus a few years before the onset of her RSPK.

Along with physician Elson de Montagno, Roll also found several interesting parallels between RSPK and complex partial epilepsy (Roll & Montagno, 1983). Among them, RSPK and complex partial epilepsy can both:

- 1.) peak in the adolescent and teenage years;
- 2.) equally affect males and females alike;
- 3.) repeatedly occur over time;
- 4.) involve brief displays of energy;
- 5.) be spontaneously triggered by states of arousal; and
- 6.) represent expressions of an emotional state.

It is important to note that while these parallels seem to suggest that the two are similar, they do not offer any clear indication that RSPK is caused by epilepsy. However, they do offer a basis for considering the possibility that RSPK is linked in some way to disturbances within the central

nervous system, which may be similar to those that are produced by epilepsy. Currently, our knowledge regarding the neuropsychological correlates of RSPK remains limited, largely due to the rarity of RSPK cases, as well as the few opportunities that have been available to conduct neurological studies with RSPK agents.

Physical: In the course of several of his RSPK investigations, Roll used a tape measure to estimate the distance between the agent and the original location of the objects before they moved, whenever their original location was known. Measurements that he had taken in six separate cases (which included the Seaford, Miami, Olive Hill, and Tina Resch cases) seemed to reveal a notable decline effect in each one: As the distance from the agent increased, the number of object movements decreased. In other words, the farther away the agent was, the fewer object movements there were.

This apparent decline effect is interesting because it resembles the patterns exhibited by two mathematical functions governing electricity and magnetism: the inverse square function and the exponential decay function. The inverse square function governs the dispersal of energy with distance from a point source in the environment (Dart, 1966, pp. 5 – 7). An example would be the light from a light bulb: the light rays get dimmer the farther they travel away from the bulb. The exponential decay function governs the gradual decay of energy as it travels through a medium, such as air or water. An example would be sunlight traveling through water: as the sun's rays penetrate the surface of the ocean, they gradually become dimmer the farther down they travel into the ocean's depths.

Because both functions could apply to RSPK on the basis of their similarity to the decline effect, Duke University engineer William Joines derived a mathematical function that effectively combined the two functions, and then applied it to the decline effects observed in the three cases investigated by Roll that seemed to provide the strongest evidence for RSPK: the Miami case, the Olive Hill case, and the Tina Resch case (Joines & Roll, 2007; Roll & Joines, 2001). The graphical results for the Miami and the Resch cases are reproduced in Figures 3 and 4. A similar kind of pattern was observed in the results for the Olive Hill case, only with a sharper decline effect.

This correlation between the patterns produced by the inverse square and exponential decay functions, and the decline effect in the object movements led Roll and Joines to suspect that there is an energetic aspect to RSPK, which may be akin to known physical principles (Joines & Roll, 2007; Roll, 2003; Roll & Joines, 2001).

In a survey of RSPK cases that he conducted with Livingston Gearhart of the State University of New York in the early 1970s, Roll also found that four of the five RSPK cases he had investigated at the time to have begun on days when the activity of the Earth's magnetic field was increased (Roll & Gearhart, 1974). Later on, Roll learned that the RSPK disturbances in the Tina Resch case had begun during a large geomagnetic storm (Roll & Storey, 2004, p. 212). Other surveys that compared larger collections of RSPK cases with recorded geomagnetic indices seemed to further confirm the finding that RSPK coincides with increased geomagnetic activity (Gearhart & Persinger, 1986; Wilkinson & Gauld, 1993, pp. 303 – 306). It is not yet clear just how such increases in the Earth's magnetic field may be related to the onset of RSPK, although there is some speculation that it may relate in some way to the apparent similarity between RSPK and epilepsy, based on some findings that are suggestive of a correlation between the occurrence of epileptic seizures and geomagnetic activity (Keshavan et al., 1981; Persinger, 1996; Rajaram & Mitra, 1981; Spottiswoode et al., 1993).

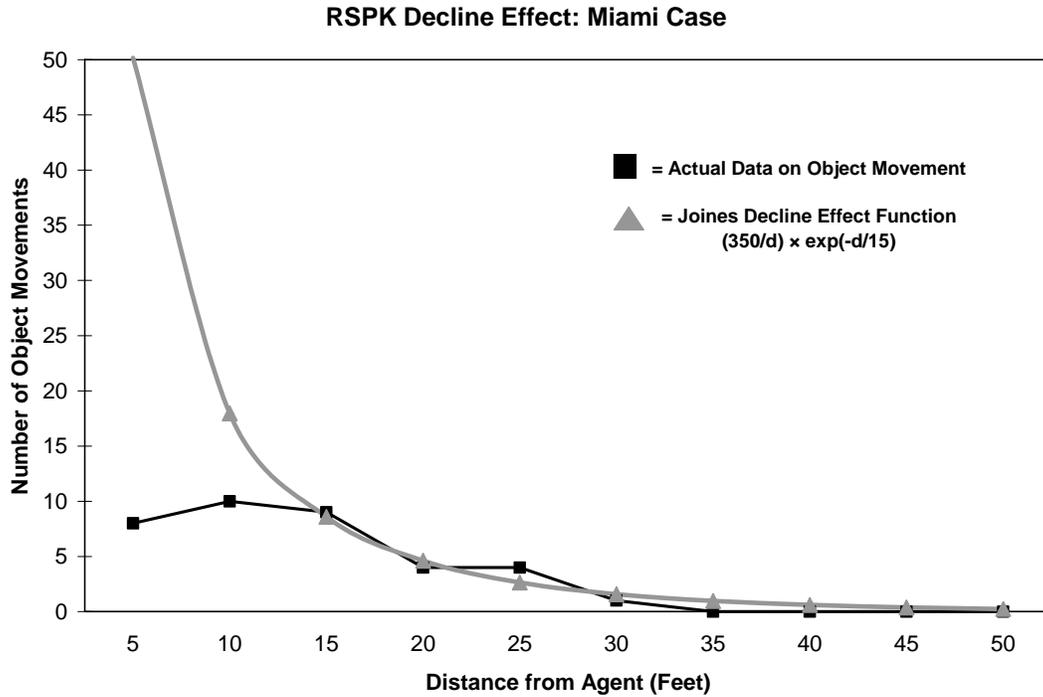


Figure 3. Graphical plot of Joines' decline effect function (grey line with triangles) against the number of object movements that occurred with increased distance from Julio (dark line with squares) in the Miami poltergeist case. Reproduced from data and equations given in Roll and Joines (2001).

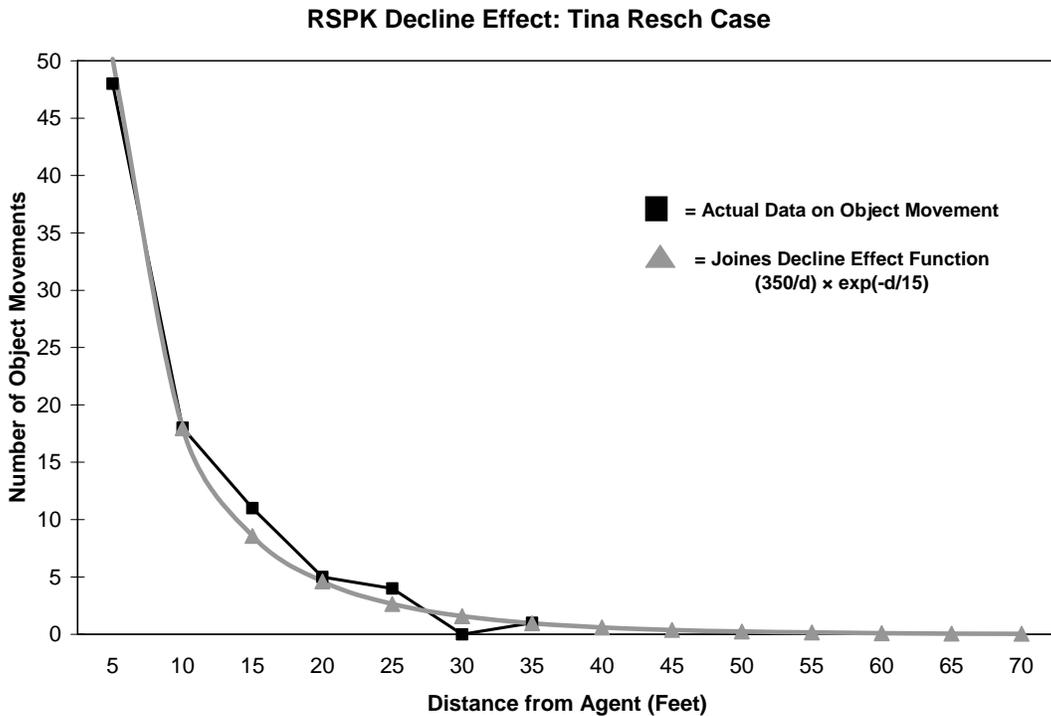


Figure 4. Graphical plot of Joines' decline effect function (grey line with triangles) against the number of object movements that occurred with increased distance from Tina (dark line with squares) in the Tina Resch case. Reproduced from data and equations given in Roll and Joines (2001).

Currently, there is still a lot that we don't know about the possible neuropsychological and physical mechanisms involved in RSPK, but through his extensive efforts at field investigation and research on such cases, Roll seems to have given us a good head start. Hopefully, if additional cases of RSPK should come to light in the future, we will be able to build upon the start he has given us.

Theoretical Approaches

On the basis of the various findings obtained by the PRF, Roll had developed several theoretical approaches to psi and survival. Some of these approaches will be briefly summarized here, but in order to be able to formulate a conceptual understanding of them, it is important to develop a basic background on the relevance of an underlying component that the approaches have in common: memory.

Roll (2006) once pointed out that unlike our familiar five senses (vision, hearing, touch, taste, and smell), ESP lacks a characteristic sensory experience. For instance, vision results in the experience of visual images, hearing in the experience of sound, smell in the experience of scents, and so on. But ESP doesn't have its own kind of experience. When a person experiences ESP, there doesn't appear to be anything unique about the experience itself that clearly tells the person, "What you're experiencing right now is ESP." Instead, ESP often seems to manifest itself in the "borrowed garb" of ordinary sense perception. A simple indication of this comes from the fact that in many spontaneous ESP experiences (e.g., Feather & Schmicker, 2005), people often report seeing images and hearing sounds just as they do in ordinary sense perception. But in the absence of a direct sensory stimulus, where do these images and sounds experienced in ESP come from? Roll (2006) argued that ESP has to rely on whatever modes of sensory expression that the brain has available at the time, and those it has available can be found in one's own memory.

Australian psi researcher Harvey Irwin (1979) once provided a useful illustration of how memory might contribute to a spontaneous ESP experience:

Suppose that by extrasensory means you learn of the death of your friend John in a car accident some distance away. Now, John has never died before, so there cannot have been a (single) trace in memory corresponding to John's death in his car. However ... each discrete piece of information is already contained in memory at the time of the experience: there is stored information about John, about death, and so on. (p. 87)

These traces relating to John, death, and car would presumably be connected together in the ESP response to form the impression that John has died in a car crash. A similar kind of process seems to occur in ordinary sense perception. For instance, if you had directly witnessed the car crash, the memory traces relating to John, death, and car would be activated in your mind to allow you to immediately realize what you are witnessing. In the absence of direct sensory stimuli, and with no experience to call its own, ESP would presumably have to utilize the sensory-related impressions contained in memory as its "sense data." In this way, memory may be useful not only for remembering the past, but also for experiencing ESP. The possibility that memory has a role in ESP seems to receive support from various experimental and spontaneous case studies which indicate that memory is a part of the ESP response (for reviews and discussions, see Broughton, 2006; Irwin, 1979; Palmer, 2006; Roll, 1966a, 1975; and Stanford, 2006).

In surveying the data on survival-related phenomena that has been collected over the years, Roll (1982a, 2006) noticed that some of these phenomena also appear to have a memory-

like component to them that is mediated through ESP. For instance, when performing psychometry, mediums and psychics seem to be (psychically) “remembering” the memory-like “impressions” or “traces” associated with the owners of certain objects (Roll, 2004). Detailed haunting apparitions of deceased people, like the ones Heidi Wyrick saw in the “Gordy” case, are suggestive of a localized “impression” or “trace” associated with a deceased person that lingers in the area where the person once lived or worked (Roll, 1981). And some cases of ostensible reincarnation, in which a young child spontaneously “recalls” or begins to speak about memories of a previous life as another individual (Stevenson, 2000; Tucker, 2005), occur in regions near where the individual had lived, which may also suggest a lingering localized “impression” or “trace” associated with a deceased person that the child is “remembering” or “responding” to via ESP (Roll, 1982b).

These examples seem to suggest a form of survival that is different from the one that many people like to think about. Instead of some autonomous aspect of a person’s personality of consciousness surviving beyond death, these components suggest survival in the sense of *a persisting memory-like “imprint” or “trace” associated with a certain person that is localized in physical space*, which can be psychically perceived or “remembered” by others who occupy that space. This kind of “imprint” or “trace” may not necessarily be imbued with or controlled by that person’s consciousness. Rather, it would be more like a residual mental “after-image” of the person that has been left behind in the vicinity of a certain object or place. Professor H. H. Price (who was Roll’s teacher at Oxford in the 1950s, as previously mentioned) had given the name *place memory* to this concept, which he suggested as one way to account for psychometry and haunting apparitions (Price, 1939, 1940).

If such a thing as place memory occurs, then how might it be created in the first place? One suggestion for this may have more to do with the living than the dead: Physician and psi researcher Pamela Heath (2004) has hypothesized that living people may create a place memory through a psychokinetic (or “mind over matter”) process, wherein the midst of emotionally charged events (such as tragedies), the minds of living people may interact with the matter contained in the surrounding environment of a given location, such that it helps create a kind of localized psychic “impression” associated with the events that persists over a long period of time. Assuming for the moment that they represent a psychic aspect to a haunting, the sounds that Roll (1991) recorded in the bow of the *Queen Mary* would seem to be conceptually consistent with this kind of process. In surveying the parapsychological literature, Roll and I had found several PK-related experiments in which the PK effects produced by psychics either seemed to “linger” around for a short time before dissipating, or seemed to extend to the surrounding environment (Williams & Roll, 2006). The results of these experiments are suggestive of “place memory,” and may therefore offer some preliminary support for Heath’s (2004) hypothesis. Of course, more research will be needed along these lines in order to better determine the validity of place memory as a working theory.

Traditionally, memory has been thought of only as a reflection of what we have learned and experienced in the past. However, when looked at in the context of social relations, memory seems to have a valuable role in maintaining the meaningful relations we share with others. We often think about the ones we love, calling images of them to mind and mentally reflecting on the meaningful interactions and experiences that we have shared with them in the past. Looking at objects of sentimental value and visiting geographical places that held great significance to us in the past (such as a favorite spot where we spent much time with a loved one) can help facilitate this process, suggesting that our meaningful relations with others extend to these things, as well.

In this way, memory forms meaningful associations that seem to reinforce the bonds we have forged with our loved ones. These bonds are maintained through memory even when we are physically separated from our loved ones over many miles. If memory serves a similar role in psychic experiences by “connecting” us with our loved ones across spatial and temporal distances, then perhaps it may act as a “channel” for ESP (Roll, 1988). Seemingly in line with this idea, many ESP experiences tend to involve immediate family members and friends, as opposed to strangers (e.g., Feather & Schmicker, 2005, p. 37). Similarly, objects and places may also provide a channel for ESP through place memory, as exemplified by psychometry and hauntings.

Akin to the way that memory forms meaningful associations between the people, objects, and places that are significant to us, Roll (1983b, 1986) theorized that memory helps form a structure of meaningful associations that psychically links various people, objects, and places with each other across space and time, establishing a structured mental “system” of interconnection through which psi manifests. As a way to conceptualize this hypothetical psi system, Roll (1986, p. 49) suggested that we can form an analogy with the biological system that makes up the human body, which is comprised of several levels: At the bottom level of this biological system are *atoms*, which organize themselves together according to chemical principles to form *molecules*, the next level up in the system. These molecules then group together in a series of biochemical reactions to create the living *cells* that will form the basis for the *organs* that in turn will make up our *bodies*, the ultimate level in the system. At each level, the individual units in this system grow smaller in number as they each combine together to become part of a larger whole. But at the same time, the units are able to maintain their individual autonomy and can function as if on their own. This is exemplified by the fact that it is possible to take a small sample of cells from nearly any part of the body and culture them in a petri dish, where they can still function just as they would within our bodies. In addition to functioning individually, each unit contributes to the function of the larger whole.

A similar perspective can be taken with the hypothetical psi system: Although our memories, thoughts, perceptions, and feelings are experienced within the confines of our bodies, which give us the sense of an individual self, they also can contribute to the larger psi system which “connects” us to other people, objects, and places that are meaningful to us. As Roll had put it:

On this hypothetical psi level we would expect that individual brains and physical objects have become part of larger configurations without hereby losing their individual characteristics. Like the water molecule in a cell, a physical object in a psi system would be more than a distinct physical entity. It would now also be part of a system of psi relationships. In this larger system it would still be subject to its own internal rules, but at the same time it would be subservient to the rules that govern the larger psi system. (Roll, 1986, p. 50)

Thus, while seeming to retain our individuality through the limits of our physical bodies, perhaps on a mental level, we are part of a higher system that is capable of transcending those limits. This was part of the basis for the systems theoretical approach to psi that Roll (1986) had introduced in the mid-1980s. Around the same time, he developed a phenomenological equivalent to this hypothetical psi system, known as *the long body* (Roll, 1987, 1988, 1989, 2008). Initially, the concept of the long body was adopted into parapsychology by Christopher Aanstoos (1986) from the language and spiritual traditions of the Iroquois Indians. Aanstoos saw this concept as a useful way to advance the phenomenological approach to the interpersonal connections exhibited

between people and objects, both in everyday life and within the context of psychic experiences. In order to see this, a bit of background may be helpful:

Within the tribal culture of the Iroquois, a tribal member's sense of self is not defined only by his or her own body; that is, by the small living and breathing body with which we are all familiar, and which gives each of us a sense of individual self. Rather, through shared cultural and ancestral bloodlines, the self extends to a much larger tribal body that includes other relatives and tribal members, both living and deceased. It also includes many of the objects and places that the tribe considers sacred, usually because these things are seen as having important spiritual ties to the tribe's origin and survival. This elongated tribal body is viewed as part of the self because it encompasses all of the things in nature and spirit that have come to define the tribe's existence, which in turn has defined the lives (and selves) of its individual tribal members. Thus, a tribal member's self is also defined by his or her own ties to this elongated tribal body (hence the term *long body*).

Aanstoos (1986) saw a similar kind of tie between one's self and others reflected in spontaneous psychic experiences. For instance, he noticed the tendency for ESP experiences to occur between immediate family members and friends (Feather & Schmicker, 2005, p. 37). Another kind of tie may be seen between one's self and physical objects, as in psychometry (Roll, 2004). On this basis, Aanstoos suggested that the long body might provide a useful metaphorical way to think about the subtle connections exhibited between people and objects in psychic experiences.

Roll (1987, 1988, 1989, 2008) further developed the long body concept within the context of psi and survival, and he described the deeper meaning of the concept most aptly in his autobiographical essay "My Search for the Soul," which was published in 1997:

The longbody soul is our psychic self; it includes significant others as well as our lands and possessions. It stretches back in space-time, farther than the body's life.

Like the stones in a riverbed, which are found to be the bones of ancient creatures, the objects that surround us are the limbs of beings with memories and intentions that persist through time. A person's longbody includes the small body and its places as well as significant others, living and apparently departed. In the same way as the physical body persists though its cells die, a longbody persists though the selves that make it may seem to perish. ESP, PK, psychometry, and precognition connect and coordinate the limbs of the longbody across space and time (Roll, 1989).

What seems inanimate to the body's soul may be part of the longbody, notably the people and things within the person's circle of psychic interaction such as family and friends, land and possessions. These are permeated with meaning and memory; they are as mental as they are material. The dualistic view is the view from the small body. Matter feels different from mind to the small body, heavy, recalcitrant, immune to command, and so we place it in another part of nature.

With the new perspective, the data of psychical research fall into place like so many pieces of a jigsaw puzzle. Apparitions of the dead, rebirth memories, mediumistic communications, or the scenes of the past from a psychometric object reveal a space behind the familiar space, "a vast amount of *something behind* the physical object as it appears to our senses," as [psychical researcher G. N. M.] Tyrrell saw. (Roll, 1997, pp. 63 – 64, italics in original)

In a sense, the long body may be seen as a large mental web of interconnection that links a person with other people, objects, and places that have meaning in that person's life, for the purpose of maintaining the meaningful relationships forged between them through memory. Psi works through these connections forged through memory to maintain these meaningful relationships across spatial and temporal distances. As Roll had once stated:

The lived body is not limited to the little body [i.e., the living and breathing body that we inhabit, and are all familiar with]. The small body is an abstraction from a larger field of experience. The lived body is a long body that stretches beyond the places and times of the small body to encompass people and things that are significant to us or whose places or objects we share. Mind and body go together, small mind with small body and group mind with long body. When someone is close to us in meaning but remote from our small body, our long body may bridge the separation.

The reach of the long body is the reach of mind and memory. Memory defines the limits of the long body and thereby of psi interactions. What you cannot remember, you cannot connect with. But the reach of memory may be increased if the preconceptions that limit the self are set aside. (Roll, 2008, p. 24)

By persisting through time as Roll (1997) described it, the long body offers a form of survival, but again this is not the kind of survival that many people like to think about. As Roll stated:

It seems unlikely that a person survives death as an individual because individuality is a property of the small body which is certain to die. Lived experience includes other people and physical objects; it is a property of the long body. The long body persists after the deaths of its individual members much like the death of the cells of the small body do not endanger the life of the long body. On the contrary the death and renewal of cells are necessary for life. In the same way the death of individuals may benefit the health of the long body as long as others are present to take their place. (Roll, 2008, p. 22)

This generally means that as an alternate to survival in the traditional sense, the long body offers survival in the sense of *a persisting memory-like structure or “system” of mental interconnection* that is maintained through ESP and place memory. As Roll later added:

The view from the long body sees the traditional evidence for survival in a new light. An apparition of someone is potentially present in the place [he or] she occupied in the past or now occupies. All homes are “haunted” by past occupants and may affect those who now live or visit there. Similarly those to whom we are close, whether living or dead, continuously “channel” their emotions and intentions to us. Reincarnation, too, is not reserved for the person who relives a stream of events from an earlier life. Through the people and places where our lives are lived and where they are embedded, these lives continuously become flesh, *carno*, again. (Roll, 2008, p. 24)

In a sense, when we experience these kinds of survival-related phenomena, we are “reconnecting” to a persisting long body. When carefully contemplated, this should have profound implications for the survival of our selves, of our family, of our significant others, and the populated world in which we live. In connecting with the long body, we connect with our broader self.

In order to be valid as a working theory for psi and survival, the long body concept needs to have some implications that can be tested. From the written material available on the concept, Roll and I were able to derive seven testable implications (Roll & Williams, 2009):

- 1.) The long body is an interpersonal body, in the sense that it can be seen as a larger mental web of interconnection as described above;
- 2.) The long body is a living body, in the sense that it has its own form of biology that is comprised in part of its living members;
- 3.) The long body includes inanimate objects;
- 4.) The long body includes physical places;
- 5.) The long body extends across time;
- 6.) The long body is a transpersonal body, in the sense that extends to the surrounding social and physical environment; and

7.) The long body survives the death of the individual body.

Roll and I were able to locate several findings within the parapsychological research literature that were consistent with one or more of these implications, and thus seemed to provide preliminary support for them. Additional hypothetical development and testing of these implications will perhaps allow us to determine whether or not the long body is a valid theoretical concept. On a personal level, it was a concept that Roll valued highly in his later years.

Conclusion

From the various avenues of research that we have reviewed here, it should be clear that the PRF had made several substantial and significant contributions to the study of psi and survival during William Roll's long tenure as its research director. Thanks to him and the various people who have been a part of the PRF staff over the years, there have been some developments in study methods (as with mediums and psychics), some innovative approaches to exploring the possible objective aspects to certain survival-related phenomena (as with out-of-body experiences), and some deeper insights into the phenomena that take them beyond their traditional perspectives (as with hauntings and poltergeists). Certainly they have served (and still serve) as "stepping stones" for the exploration of psi and the question of survival.

In his later years, Roll had hoped that it would be possible for the PRF to carry on its legacy of research and education on the topics of psi and survival that he had helped to start. With the arrival of the 50th year of the PRF's existence and the dawning of a new era, it is a promising prospect that efforts are now being made to do just that. The PRF's current president, Jerry Conser, has already made a valuable start by creating a website for the PRF that will provide information on all of the PRF's future activities, as well as provide electronic copies of many of the archival PRF publications by Roll and other members of the PRF staff.

In addition, the PRF will conduct some new experimental studies related to the question of survival, beginning with an OBE detection study that will be conducted in joint collaboration with the Rhine Research Center and the Monroe Institute. In this study, attempts will be made to detect and measure weight changes occurring in the bodies of selected participants who have been trained to willfully induce an out-of-body experience through programs offered by the Monroe Institute. When the participants report an experience of going out of their bodies, electronic scales will be monitored to see whether a corresponding gain or loss in the weight of their bodies occurs. If such a change is found to be a fairly consistent occurrence, then it would be a first step in determining whether or not something really does leave and re-enter the body during an OBE. Such a finding could potentially have implications for what, if anything, survives the body after death.¹⁹

It is hoped that with time and effort, the PRF will be able to make Roll's hope a reality on a broader scale and continue to build upon the findings that he and the other members obtained in the five decades since the founding of the PRF. In this way, the PRF will seek to carry onward with the dedicated "spirit" that William Roll had always carried with him, and his legacy with the PRF shall never be forgotten.

¹⁹ A news story about the OBE weight change study to be conducted by the PRF, the Rhine Center, and the Monroe Institute was made available on the News & Observer website on June 25, 2012. It can be viewed on-line at: <http://www.newsobserver.com/2012/06/25/2157279/shaffer-how-much-does-your-soul.html>.

References

- Aanstoos, C. M. (1986). Psi and the phenomenology of the long body. *Theta*, 13/14, 49 – 51.
- Alexander, C. H. (2002). Psychic phenomena and the brain: An evolution of research, technology, and understanding. *Proceedings of Presented Papers: The Parapsychological Association 45th Annual Convention* (pp. 9 – 24). Raleigh, NC: Parapsychological Association, Inc.
- Alexander, C. H., Persinger, M. A., Roll, W. G., & Webster, D. L. (1998). EEG and SPECT data of a selected subject during psi tasks: The discovery of a neurophysiological correlate. *Proceedings of Presented Papers: The Parapsychological Association 41st Annual Convention* (pp. 3 – 12). Durham, NC: Parapsychological Association, Inc.
- Alvarado, C. S. (1982). ESP during out-of-body experiences: A review of experimental studies. *Journal of Parapsychology*, 46, 209 – 230.
- Barrett, W. F. (1911). Poltergeists, old and new. *Proceedings of the Society for Psychical Research*, 15, 377 – 412.
- Baumann, S., Stewart, J. L., & Roll, W. G. (1986). Preliminary results from the use of two novel detectors for psychokinesis. In D. H. Weiner & D. I. Radin (Eds.) *Research in Parapsychology 1985* (pp. 59 – 62). Metuchen, NJ: Scarecrow Press.
- Beischel, J., & Schwartz, G. E. (2007). Anomalous information reception by research mediums demonstrated using a novel triple-blind protocol. *Explore: The Journal of Science & Healing*, 3, 23 – 27.
- Braithwaite, J. J. (2004). Magnetic variances associated with ‘haunt-type’ experiences: A comparison using time-synchronized baseline measurements. *European Journal of Parapsychology*, 19, 3 – 28.
- Braithwaite, J. J., Perez-Aquino, K., & Townsend, M. (2005). In search of magnetic anomalies associated with haunt-type experiences: Pulses and patterns in dual time-synchronized measurements. *Journal of Parapsychology*, 68, 255 – 288.
- Broughton, R. S. (2006). Why do ghosts wear clothes? – Examining the role of memory and emotion in anomalous experiences. *European Journal of Parapsychology*, 21, 148 – 165.
- Burdick, D. S., & Roll, W. G. (1971). Differential weighting of ESP responses. *Journal of the American Society for Psychical Research*, 65, 173 – 184.
- Damgaard, J. (1971). A summary of additional research with Lalsingh Harribance. In W. G. Roll, R. L. Morris, & J. D. Morris (Eds.) *Proceedings of the Parapsychological Association No. 8* (pp. 74 – 76). Durham, NC: Parapsychological Association, Inc.
- Dart, F. E. (1966). *Electricity and Electromagnetic Fields*. Columbus, OH: Charles E. Merrill Books.
- Dickson, D. H., & Kelly, I. W. (1985). The “Barnum effect” in personality assessment: A review of the literature. *Psychological Reports*, 57, 367 – 382.
- Duncan, L., & Roll, W. (1995). *Psychic Connections: A Journey into the Mysterious World of Psi*. New York: Delacorte Press.
- Eisler, W. (1975). The Bronx poltergeist. In J. D. Morris, W. G. Roll, & R. L. Morris (Eds.) *Research in Parapsychology 1974* (pp. 139 – 143). Metuchen, NJ: Scarecrow Press.
- Feather, S. R., & Schmicker, M. (2005). *The Gift: ESP, the Extraordinary Experiences of Ordinary People*. New York: St. Martin’s Press.
- French, C. C., Haque, U., Bunton-Stasyshyn, R., & Davis, R. (2009). The “haunt” project: An attempt to build a “haunted” room by manipulating complex electromagnetic fields and infrasound. *Cortex*, 45, 619 – 629.
- Furnham, A., & Schofield, S. (1987). Accepting personality test feedback: A review of the Barnum effect. *Current Psychological Research and Reviews*, 6, 162 – 178.
- Gauld, A. (1982). *Mediumship and Survival: A Century of Investigation*. London: William Heinemann, Ltd.

- Gearhart, L., & Persinger, M. A. (1986). Geophysical variables and behavior: XXXIII. Onsets of historical and contemporary poltergeist episodes occurred with sudden increases in geomagnetic activity. *Perceptual and Motor Skills*, *62*, 463 – 466.
- Gerding, J. L. F., Wezelman, R., & Bierman, D. J. (1997). The Druten disturbances: Exploratory RSPK research. *Proceedings of Presented Papers: The Parapsychological Association 40th Annual Convention* (pp. 149 – 156). Durham, NC: Parapsychological Association, Inc.
- Harary, K. (2005, November/December). Mind games: My journey through the psychic labyrinth. *Psychology Today*, pp. 74 – 85.
- Harary, S. B., & Solfvin, G. (1977). A study of out-of-body experiences using auditory targets. In J. D. Morris, W. G. Roll, & R. L. Morris (Eds.) *Research in Parapsychology 1976* (pp. 57 – 59). Metuchen, NJ: Scarecrow Press.
- Harte, T. M. (2000). Contextual mediation of perceptions during hauntings and poltergeist-like experiences: A replication and extension. *Perceptual and Motor Skills*, *91*, 451 – 459.
- Hastings, A. C. (1978). The Oakland poltergeist. *Journal of the American Society for Psychological Research*, *72*, 233 – 256.
- Heath, P. R. (2004). The possible role of psychokinesis in place memory. *Australian Journal of Parapsychology*, *4*, 63 – 80.
- Horn, S. (2009). *Unbelievable: Investigations into Ghosts, Poltergeists, Telepathy and Other Unseen Phenomena from the Duke Parapsychology Laboratory*. New York: Ecco/HarperCollins.
- Huegel, D., Goodrum, J., & Roll, W. (1983). An ESP study with psychometric objects [Abstract]. *Journal of Parapsychology*, *47*, 61 – 62.
- Irwin, H. J. (1979). *Psi and the Mind: An Information Processing Approach*. Metuchen, NJ: Scarecrow Press.
- Janis, J., Hartwell, J., Harary, B., Levin, J., & Morris, R. L. (1974). A description of the physiological variables connected with an out-of-body study. In W. G. Roll, R. L. Morris, & J. D. Morris (Eds.) *Research in Parapsychology 1973* (pp. 36 – 37). Metuchen, NJ: Scarecrow Press.
- Joines, W. T., & Roll, W. G. (2007). Energetic aspects of RSPK. *Proceedings of Presented Papers: The Parapsychological Association 50th Annual Convention* (pp. 48 – 56). Columbus, OH: Parapsychological Association, Inc.
- Kelly, E. W. (2010). Some directions for mediumship research. *Journal of Scientific Exploration*, *24*, 247 – 282.
- Kelly, E. W., & Arcangel, D. (2011). An investigation of mediums who claim to give information about deceased persons. *Journal of Nervous and Mental Disease*, *199*, 11 – 17.
- Keshavan, M. S., Gangadhar, B. N., Gautam, R. U., Ajit, V. B., & Kapur, R. L. (1981). Convulsive threshold in humans and rats and magnetic field changes: Observations during total solar eclipse. *Neuroscience Letters*, *22*, 205 – 208.
- Klein, J. (1971). Recent research with Lalsingh Harribance: A comparison of clairvoyance and telepathy [Abstract]. In W. G. Roll, R. L. Morris, & J. D. Morris (Eds.) *Proceedings of the Parapsychological Association No. 8* (pp. 71 – 72). Durham, NC: Parapsychological Association, Inc.
- Kolb, B., & Whishaw, I. Q. (1990). *Fundamentals of Human Neuropsychology* (3rd Ed.). New York: W. H. Freeman & Company.
- Krippner, S. (1996). A pilot study of ESP, dreams and purported OBEs. *Journal of the Society for Psychological Research*, *61*, 88 – 93.
- Krippner, S., & Friedman, H. L. (Eds.) (2010). *Mysterious Minds: The Neurobiology of Psychics, Mediums, and Other Extraordinary People*. Santa Barbara, CA: Praeger/ABC-Clio.
- Lange, R., & Houran, J. (2001). Ambiguous stimuli brought to life: The psychological dynamics of hauntings and poltergeists. In J. Houran & R. Lange (Eds.) *Hauntings and Poltergeists: Multidisciplinary Perspectives* (pp. 280 – 306). Jefferson, NC: McFarland & Company, Inc.
- Lange, R., Houran, J., Harte, T. M., & Havens, R. A. (1996). Contextual mediation of perceptions in hauntings and poltergeist-like experiences. *Perceptual and Motor Skills*, *82*, 755 – 762.

- Maher, M. C. (1999). Riding the waves in search of the particles: A modern study of ghosts and apparitions. *Journal of Parapsychology*, 63, 47 – 80.
- Mathews, F. M., & Solfvin, G. F. (1977). A case of RSPK in Massachusetts: Part I – the poltergeist. In J. D. Morris, W. G. Roll, & R. L. Morris (Eds.) *Research in Parapsychology 1976* (pp. 219 – 227). Metuchen, NJ: Scarecrow Press.
- McMahon, J. D. S., & Lascrain, A. M. (1997). *Shopping for Miracles: A Guide to Psychics & Psychic Powers*. Los Angeles: Roxbury Park/Lowell House.
- Mitchell, J. (1973, April). Out of the body vision. *Psychic*, pp. 44 – 47.
- Morris, R. L. (1972). An exact method for evaluating preferentially matched free-response material. *Journal of the American Society for Psychical Research*, 66, 401 – 407.
- Morris, R. L. (1974). The use of detectors for out-of-body experiences. In W. G. Roll, R. L. Morris, & J. D. Morris (Eds.) *Research in Parapsychology 1973* (pp. 114 – 116). Metuchen, NJ: Scarecrow Press.
- Morris, R. L., Harary, S. B., Janis, J., Hartwell, J., & Roll, W. G. (1978). Studies of communication during out-of-body experiences. *Journal of the American Society for Psychical Research*, 72, 1 – 21.
- Morris, R. L., Roll, W. G., Klein, J., & Wheeler, G. (1972). EEG patterns and ESP results in forced-choice experiments with Lalsingh Harribance. *Journal of the American Society for Psychical Research*, 66, 253 – 268.
- Nichols, A., & Roll, W. G. (1999). Discovery of electromagnetic anomalies at two reputedly haunted castles in Scandinavia. *Proceedings of Presented Papers: The Parapsychological Association 42nd Annual Convention* (pp. 219 – 236). Durham, NC: Parapsychological Association, Inc.
- Osis, K. (1974). Perspectives for out-of-body research. In W. G. Roll, R. L. Morris, & J. D. Morris (Eds.) *Research in Parapsychology 1973* (pp. 110 – 113). Metuchen, NJ: Scarecrow Press.
- Osis, K. (1975). Perceptual experiments on out-of-body experiences. In J. D. Morris, W. G. Roll, & R. L. Morris (Eds.) *Research in Parapsychology 1974* (pp. 53 – 55). Metuchen, NJ: Scarecrow Press.
- Osis, K., & McCormick, D. (1980). Kinetic effects at the ostensible location of an out-of-body projection during perceptual testing. *Journal of the American Society for Psychical Research*, 74, 319 – 329.
- Osis, K., & Mitchell, J. L. (1977). Physiological correlates of reported out-of-body experiences. *Journal of the Society for Psychical Research*, 49, 525 – 536.
- Palmer, J. (1974). A case of RSPK involving a ten-year-old boy: The Powhatan poltergeist. *Journal of the American Society for Psychical Research*, 68, 1 – 32.
- Palmer, J. (2006). Memory and ESP – A review of the experimental literature. *European Journal of Parapsychology*, 21, 95 – 121.
- Persinger, M. A. (1996). Enhancement of limbic seizures by nocturnal application of experimental magnetic fields that simulate the magnitude and morphology of increases in geomagnetic activity. *International Journal of Neuroscience*, 86, 271 – 280.
- Persinger, M. A., & Koren, S. A. (2001). Predicting the characteristics of haunt phenomena from geomagnetic factors and brain sensitivity: Evidence from field and experimental studies. In J. Houran & R. Lange (Eds.) *Hauntings and Poltergeists: Multidisciplinary Perspectives* (pp. 179 – 194). Jefferson, NC: McFarland & Company.
- Pratt, J. G. (1960). Methods of evaluating verbal material. *Journal of Parapsychology*, 24, 94 – 109.
- Pratt, J. G. (1969). *On the Evaluation of Verbal Material in Parapsychology*. Parapsychological Monographs No. 10. New York: Parapsychology Foundation, Inc.
- Pratt, J. G., & Birge, W. R. (1948). Appraising verbal test material in parapsychology. *Journal of Parapsychology*, 12, 236 – 256.
- Pratt, J. G., & Palmer, J. (1976). An investigation of an unpublicized family poltergeist. In J. D. Morris, W. G. Roll, & R. L. Morris (Eds.) *Research in Parapsychology 1975* (pp. 109 – 115). Metuchen, NJ: Scarecrow Press.
- Pratt, J. G., & Roll, W. G. (1958). The Seaford disturbances. *Journal of Parapsychology*, 22, 79 – 124.

- Price, H. H. (1939). Haunting and the “psychic ether” hypothesis: With some preliminary reflections on the present condition and possible future of psychical research. *Proceedings of the Society for Psychical Research*, 45, 307 – 343.
- Price, H. H. (1940). Some philosophical questions about telepathy and clairvoyance. *Philosophy*, 15, 363 – 385.
- Price, H. H. (1960a). Apparitions: Two theories. *Journal of Parapsychology*, 24, 110 – 128.
- Price, H. H. (1960b). Mediumship and human survival. *Journal of Parapsychology*, 24, 199 – 219.
- Radin, D. I. (1997). *The Conscious Universe: The Scientific Truth of Psychic Phenomena*. San Francisco: HarperEdge.
- Radin, D. I., & Roll, W. G. (1994). A radioactive ghost in a music hall. *Proceedings of Presented Papers: The Parapsychological Association 37th Annual Convention* (pp. 337 – 346). Durham, NC: Parapsychological Association, Inc.
- Radin, D. I., & Roll, W. G. (1996). Investigation of two haunted castles in Scandinavia. *Proceedings of Presented Papers: The Parapsychological Association 39th Annual Convention* (pp. 271 – 278). Durham, NC: Parapsychological Association, Inc.
- Rajaram, M., & Mitra, S. (1981). Correlation between convulsive seizure and geomagnetic activity. *Neuroscience Letters*, 24, 187 – 191.
- Renier, N. (2008). *A Mind for Murder: The Real-life Case Files of a Psychic Investigator*. Charlottesville, VA: Hampton Roads Publishing Company.
- Rhine, J. B. (1956). Research on spirit survival re-examined. *Journal of Parapsychology*, 20, 121 – 131.
- Rhine, L. E. (1960). The evaluation of non-recurrent psi experiences bearing on post-mortem survival. *Journal of Parapsychology*, 24, 8 – 25.
- Rhine, L. E. (1963). Spontaneous physical effects and the psi process. *Journal of Parapsychology*, 27, 84 – 122.
- Rogo, D. S. (1986). *On the Track of the Poltergeist*. Englewood Cliffs, NJ: Prentice-Hall.
- Roll, W. G. (1960). The contribution of studies of “mediumship” to research on survival after death. *Journal of Parapsychology*, 24, 258 – 278.
- Roll, W. G. (1962). Designs for tests with free response material. *Journal of the American Society for Psychical Research*, 56, 184 – 195.
- Roll, W. G. (1966a). ESP and memory. *International Journal of Neuropsychiatry*, 2, 505 – 521.
- Roll, W. G. (1966b). Further token object tests with a “sensitive.” *Journal of the American Society for Psychical Research*, 60, 270 – 280.
- Roll, W. G. (1966c). Token object matching tests: A third series. *Journal of the American Society for Psychical Research*, 60, 363 – 379.
- Roll, W. G. (1971). Free verbal response and Identi-Kit tests with a medium. *Journal of the American Society for Psychical Research*, 65, 185 – 191.
- Roll, W. G. (1972/2004). *The Poltergeist*. New York: Nelson Doubleday, Inc. (Reprinted by Paraview Special Editions).
- Roll, W. G. (1974). Survival research: Problems and possibilities. In E. D. Mitchell & J. White (Eds.) *Psychic Exploration: A Challenge for Science* (pp. 397 – 424). New York: G. P. Putnam’s Sons.
- Roll, W. G. (1975). *Theory and Experiment in Psychical Research* [M.Litt. thesis, Oxford University, 1959]. New York: Arno Press.
- Roll, W. G. (1977). Poltergeists. In B. B. Wolman (Ed.) *Handbook of Parapsychology* (pp. 382 – 413). New York: Van Nostrand Reinhold.
- Roll, W. G. (1981). A memory theory for apparitions. In W. G. Roll & J. Beloff (Eds.) *Research in Parapsychology 1980* (pp. 5 – 7). Metuchen, NJ: Scarecrow Press.
- Roll, W. G. (1982a). The changing perspective on life after death. In S. Krippner (Ed.) *Advances in Parapsychological Research 3* (pp. 147 – 291). New York: Plenum Press.
- Roll, W. G. (1982b). Memory, mediumship, and reincarnation. In W. G. Roll, R. L. Morris, & R. A. White (Eds.) *Research in Parapsychology 1981* (pp. 182 – 184). Metuchen, NJ: Scarecrow Press.
- Roll, W. G. (1983a). Recurrent and nonrecurrent psi effects. *Journal of Parapsychology*, 47, 341 – 346.

- Roll, W. G. (1983b). The psi structure theory of survival. In W. G. Roll, J. Beloff, & R. A. White (Eds.) *Research in Parapsychology 1982* (pp. 117 – 120). Metuchen, NJ: Scarecrow Press.
- Roll, W. G. (1986). A systems theoretical approach to psi. In B. Shapin & L. Coly (Eds.) *Proceedings of an International Conference: Current Trends in Psi Research* (pp. 47 – 91). New York: Parapsychology Foundation, Inc.
- Roll, W. G. (1987). Memory and the long body. *Theta*, 15, 10 – 29.
- Roll, W. G. (1988). Psi and the phenomenology of memory. In D. H. Weiner & R. L. Morris (Eds.) *Research in Parapsychology 1987* (pp. 131 – 134). Metuchen, NJ: Scarecrow Press.
- Roll, W. G. (1989). Memory and the long body. In L. A. Henkel & R. E. Berger (Eds.) *Research in Parapsychology 1988* (pp. 67 – 72). Metuchen, NJ: Scarecrow Press.
- Roll, W. G. (1991, May). Journey to the Grey Ghost. *Fate*, pp. 55 – 61.
- Roll, W. G. (1997). My search for the soul. In C. T. Tart (Ed.) *Body Mind Spirit: Exploring the Parapsychology of Spirituality* (pp. 50 – 67). Charlottesville, VA: Hampton Roads Publishing Company.
- Roll, W. G. (2003). Poltergeists, electromagnetism and consciousness. *Journal of Scientific Exploration*, 17, 75 – 86.
- Roll, W. G. (2004). Early studies on psychometry. *Journal of Scientific Exploration*, 18, 711 – 720.
- Roll, W. G. (2006). A discussion of the evidence that personal consciousness persists after death with special reference to poltergeist phenomena. *Australian Journal of Parapsychology*, 6, 5 – 20.
- Roll, W. G. (2007). Psychological and neuropsychological aspects of RSPK. *Proceedings of Presented Papers: The Parapsychological Association 50th Annual Convention* (pp. 114 – 130). Columbus, OH: Parapsychological Association, Inc.
- Roll, W. G. (2008). Psi and the long body. *Australian Journal of Parapsychology*, 8, 6 – 28.
- Roll, W. G., & Brittain, B. (1986). Thomasville haunting. *Theta*, 13/14, 30 – 34.
- Roll, W. G., & Burdick, D. S. (1969). Statistical models for the assessment of verbal and other ESP responses. *Journal of the American Society for Psychical Research*, 63, 287 – 302.
- Roll, W. G., & Gearhart, L. (1974). Geomagnetic perturbations and RSPK. In W. G. Roll, R. L. Morris, & J. D. Morris (Eds.) *Research in Parapsychology 1973* (pp. 44 – 46). Metuchen, NJ: Scarecrow Press.
- Roll, W. G., & Joines, W. T. (2001). RSPK and consciousness. *Proceedings of Presented Papers: The Parapsychological Association 44th Annual Convention* (pp. 267 – 284). Durham, NC: Parapsychological Association, Inc.
- Roll, W. G., & Klein, J. (1972). Further forced-choice ESP experiments with Lalsingh Harribance. *Journal of the American Society for Psychical Research*, 66, 103 – 112.
- Roll, W. G., Maher, M. C., & Brown, B. (1992). An investigation of reported haunting occurrences in a Japanese restaurant in Georgia. *Proceedings of Presented Papers: The Parapsychological Association 35th Annual Convention* (pp. 151 – 166). Durham, NC: Parapsychological Association, Inc.
- Roll, W. G., & Montagno, E. de A. (1983). Similarities between RSPK and psychomotor epilepsy. In W. G. Roll, J. Beloff, & R. A. White (Eds.) *Research in Parapsychology 1982* (pp. 270 – 271). Metuchen, NJ: Scarecrow Press.
- Roll, W. G., Moody, R. A., & Radin, D. I. (1996). Reports of hauntings at Dragsholm Castle, Denmark, and Engsö Castle, Sweden. *Proceedings of Presented Papers: The Parapsychological Association 39th Annual Convention* (pp. 253 – 270). Durham, NC: Parapsychological Association, Inc.
- Roll, W. G., Morris, R. L., Damgaard, J. A., Klein, J., & Roll, M. (1973). Free verbal response experiments with Lalsingh Harribance. *Journal of the American Society for Psychical Research*, 67, 197 – 207.
- Roll, W. G., & Persinger, M. A. (1998a). Poltergeist and nonlocality: Energetic aspects of RSPK. *Proceedings of Presented Papers: The Parapsychological Association 41st Annual Convention* (pp. 184 – 198). Durham, NC: Parapsychological Association, Inc.

- Roll, W. G., & Persinger, M. A. (1998b). Is ESP a form of perception? Contributions from a study of Sean Harribance. *Proceedings of Presented Papers: The Parapsychological Association 41st Annual Convention* (pp. 199 – 209). Durham, NC: Parapsychological Association, Inc.
- Roll, W. G., & Persinger, M. A. (2001). Investigations of poltergeists and haunts: A review and interpretation. In J. Houran & R. Lange (Eds.) *Hauntings and Poltergeists: Interdisciplinary Perspectives* (pp. 123 – 163). Jefferson, NC: McFarland & Company, Inc.
- Roll, W. G., Persinger, M. A., Webster, D. L., Tiller, S. G., & Cook, C. M. (2002). Neurobehavioral and neurometabolic (SPECT) correlates of paranormal information: Involvement of the right hemisphere and its sensitivity to weak complex magnetic fields. *International Journal of Neuroscience*, *112*, 197 – 224.
- Roll, W. G., & Pratt, J. G. (1971). The Miami disturbances. *Journal of the American Society for Psychical Research*, *65*, 409 – 454.
- Roll, W. G., Sheehan, L. C., Persinger, M. A., & Glass, A. Y. (1996). The haunting of White Ranch. *Proceedings of Presented Papers: The Parapsychological Association 39th Annual Convention* (pp. 279 – 294). Durham, NC: Parapsychological Association, Inc.
- Roll, W. G., & Tart, C. T. (1965). Exploratory token object tests with a “sensitive.” *Journal of the American Society for Psychical Research*, *59*, 226 – 236.
- Roll, W. G., & Storey, V. (2004). *Unleashed – Of Poltergeists and Murder: The Curious Story of Tina Resch*. New York: Paraview Pocket Books.
- Roll, W. G., & Williams, B. J. (2009). *The matter of meaning*. Paper presented at the symposium “Neurobiology of Extraordinary Experiences,” held at 117th Annual Convention of the American Psychological Association, Toronto, Ontario, Canada, August 8.
- Roll, W. G., & Williams, B. J. (submitted). *Empirical Examinations of the Reported Abilities of a Psychic Claimant: A Review of Experiments and Explorations with Sean Harribance*.
- Schmeidler, G. R. (1966). Quantitative investigation of a “haunted house.” *Journal of the American Society for Psychical Research*, *60*, 137 – 149.
- Schouten, S. A. (1993). Applied parapsychology studies of psychics and healers. *Journal of Scientific Exploration*, *7*, 375 – 401.
- Schouten, S. A. (1994). An overview of quantitatively evaluated studies with mediums and psychics. *Journal of the American Society for Psychical Research*, *88*, 221 – 254.
- Solfvin, G. F., Kelly, E. F., & Burdick, D. S. (1978). Some new methods of analysis for preferential-ranking data. *Journal of the American Society for Psychical Research*, *72*, 93 – 109.
- Solfvin, G. F., & Roll, W. G. (1976, March – April). A case of RSPK with an epileptic agent. *Parapsychology Review*, *7*(2), 20 – 21.
- Spottiswoode, S. J. P., Taubøll, E., Duchowny, M., & Neppe, V. M. (1993). Possible effect of geomagnetic fluctuations on the timing of epileptic seizures [Abstract]. *Epilepsia*, *34*, Supplement 2, 56.
- Stanford, R. G. (2006). Making sense of the “extrasensory” – Modeling receptive psi using memory-related concepts. *European Journal of Parapsychology*, *21*, 122 – 147.
- Stevenson, I. (1977). Research into the evidence of man’s survival after death: A historical and critical survey with a summary of recent developments. *Journal of Nervous and Mental Disease*, *165*, 152 – 170.
- Stevenson, I. (2000). The phenomenon of claimed memories of previous lives: Possible interpretations and importance. *Medical Hypotheses*, *54*, 652 – 659.
- Stewart, J. L., Roll, W. G., & Baumann, S. (1987). Hypnotic suggestion and RSPK. In D. H. Weiner & R. D. Nelson (Eds.) *Research in Parapsychology 1986* (pp. 30 – 35). Metuchen, NJ: Scarecrow Press.
- Stuart, C. E. (1942). An ESP test with drawings. *Journal of Parapsychology*, *6*, 20 – 43.
- Stump, J. P., Roll, W. G., & Roll, M. (1970). Some exploratory forced-choice ESP experiments with Lalsingh Harribance. *Journal of the American Society for Psychical Research*, *64*, 421 – 431.
- Targ, R., & Puthoff, H. E. (1977/2005). *Mind-Reach: Scientists Look at Psychic Ability*. New York: Delacorte Press/Eleanor Friede. (Reprinted by Hampton Roads Publishing Company)

- Tart, C. T. (1968). A psychophysiological study of out-of-the-body experiences in a selected subject. *Journal of the American Society for Psychical Research*, 62, 3 – 27.
- Tart, C. T. (1998). Six studies of out-of-body experiences. *Journal of Near-Death Studies*, 17, 73 – 99.
- Teguis, A., & Flynn, C. P. (1983). Dealing with demons: Psychosocial dynamics of paranormal occurrences. *Journal of Humanistic Psychology*, 23, 59 – 75.
- Terhune, D. B., Ventola, A., & Houran, J. (2007). An analysis of contextual variables and the incidence of photographic anomalies at an alleged haunt and a control site. *Journal of Scientific Exploration*, 21, 99 – 120.
- Tucker, J. (2005). *Life Before Life: A Scientific Investigation of Children's Memories of Previous Lives*. New York: St. Martin's Press.
- Wilkinson, H. P., & Gauld, A. (1993). Geomagnetism and anomalous experiences, 1868 – 1980. *Proceedings of the Society for Psychical Research*, 57, 275 – 310.
- Williams, B. J. (2011). Exploring the psychic brain: On neuroscience and psi phenomena. *Australian Journal of Parapsychology*, 11, 154 – 192.
- Williams, B. J., & Roll, W. G. (2006). Psi, place memory, & laboratory space. *Proceedings of Presented Papers: The Parapsychological Association 49th Annual Convention* (pp. 248 – 258). Petaluma, CA: Parapsychological Association, Inc.
- Williams, B. J., & Roll, W. G. (2008). Neuropsychological correlates of psi phenomena. *Proceedings of Presented Papers: The Parapsychological Association 51st Annual Convention* (pp. 264 – 287). Columbus, OH: Parapsychological Association, Inc.
- Wiseman, R., & Morris, R. L. (1995). *Guidelines for Testing Psychic Claimants*. Amherst, NY: Prometheus Books.
- Wiseman, R., Watt, C., Greening, E., Stevens, P., & O'Keeffe, C. (2002). An investigation into the alleged haunting of Hampton Court Palace: Psychological variables and magnetic fields. *Journal of Parapsychology*, 66, 387 – 408.
- Wiseman, R., Watt, C., Stevens, P., Greening, E., & O'Keeffe, C. (2003). An investigation into alleged 'hauntings.' *British Journal of Psychology*, 94, 195 – 211.